

UNITED STATES DISTRICT COURT  
WESTERN DISTRICT OF TEXAS  
WACO DIVISION

3 DENSYS, LTD ) Docket No. WA 19-CA-680 ADA  
4 )  
4 vs. ) Waco, Texas  
5 )  
5 3SHAPE TRIOS A/S, )  
3SHAPE A/S ) August 31, 2020

7 TRANSCRIPT OF VIDEOCONFERENCE MARKMAN HEARING  
BEFORE THE HONORABLE ALAN D. ALBRIGHT

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25 Proceedings reported by computerized stenography, transcript produced by computer-aided transcription.

09:11:15 1 THE COURT: Good morning, everyone. I'm sorry  
09:11:16 2 I'm late.

09:11:17 3 Suzanne, would you be so kind as to call the  
09:11:19 4 case, please.

09:11:20 5 THE CLERK: Sure.

09:11:22 6 Markman hearing in Civil Action 6:19-CV-680,  
09:11:25 7 styled, Densys, Limited vs. 3Shape Trios A/S and 3Shape  
09:11:31 8 A/S.

09:11:32 9 THE COURT: And if I could -- good morning.

09:11:34 10 If I could hear from counsel of record, please.  
09:11:37 11 And I'm going to -- while you're announcing on the record,  
09:11:39 12 I'm going to run back to my desk and grab a pen. I'm not  
09:11:42 13 leaving you. So if I could hear from plaintiff's counsel  
09:11:45 14 first.

09:11:48 15 MR. BURGER: Good morning, your Honor.

09:11:49 16 My name is Oded Burger. I'm from the New York  
09:11:52 17 City office of Goldberg Segalla, and I represent the  
09:11:54 18 plaintiff. Today with me is Ron Daignault, and he's also  
09:12:00 19 from the New York City office of Goldberg Segalla.

09:12:01 20 THE COURT: Okay. Very good.

09:12:02 21 And will you be the primary speaker, both of you?

09:12:05 22 MR. BURGER: Yes, your Honor. I think Ron may  
09:12:09 23 chime in, but I'll be doing the primary argument.

09:12:13 24 THE COURT: Very good.

09:12:14 25 And if I could hear from counsel for the

09:12:16 1 defendant.

09:12:19 2 MR. CICCARELLI: Good morning, your Honor.

09:12:19 3 This is Max Ciccarelli for 3Shape. As is  
09:12:24 4 customary for me, I'll let other people that are more  
09:12:26 5 intelligent than me do the speaking. And today, it's  
09:12:28 6 going to be lead counsel Bill Belanger, Frank Liu and  
09:12:33 7 Goutam Patnaik. And we also have a client representative  
09:12:36 8 on the Zoom call, and I'll let Mr. Patnaik introduce him.

09:12:46 9 THE COURT: Mr. Patnaik, you're on mute.

09:12:48 10 MR. PATNAIK: Sorry. I got it. Sorry about  
09:12:50 11 that.

09:12:50 12 I just wanted to introduce our two client  
09:12:52 13 representatives. It's from our litigation department  
09:12:55 14 within 3Shape. We have Thomas Kirkbak and we have Mads  
09:13:00 15 Demenikov. They were both extremely interested in the  
09:13:01 16 Markman process in U.S. litigation, and being in Denmark,  
09:13:05 17 the Zoom gives us a nice opportunity for them to  
09:13:08 18 participate.

09:13:08 19 THE COURT: Well, I hope we don't disappoint  
09:13:13 20 them. I hope I get a decent Zoom review or, you know,  
09:13:16 21 Yelp review. It will be my first international Yelp  
09:13:19 22 review. This will be a good thing. So let me thank them  
09:13:23 23 for attending.

09:13:24 24 I always try and make it a point to thank inhouse  
09:13:29 25 attorneys and anyone who's from inhouse for taking the

09:13:32 1 time to attend. I think it's important folks see the  
09:13:37 2 judicial process and see their lawyers and see -- frankly,  
09:13:40 3 see how I handle my docket, as well. So I think it's a  
09:13:44 4 very good thing that they're on the call. I appreciate it  
09:13:46 5 very much.

09:13:47 6 So let's turn to typically the way I do my  
09:13:52 7 Markmans, if you all have not had one in front of me yet,  
09:13:55 8 especially since I've been giving preliminary  
09:13:58 9 constructions is, I start with the plaintiff. I ask the  
09:14:01 10 plaintiff on each proposed claim term their position with  
09:14:05 11 respect to the Court's proposed or preliminary claim  
09:14:10 12 construction. If the plaintiff says that they are -- they  
09:14:16 13 find the proposal acceptable, then I move immediately to  
09:14:20 14 the defendants to hear from them. If the plaintiff says  
09:14:23 15 that they would like to have -- help me fix or amend my  
09:14:30 16 proposal, then I let them go first, and I typically allow  
09:14:34 17 defendants then to go second.

09:14:36 18 So starting with the claim construction from the  
09:14:40 19 707 patent of, quote, an intra-oral fixed global  
09:14:47 20 registration position inside the oral cavity, I would ask  
09:14:50 21 plaintiff's counsel what your position is with respect to  
09:14:54 22 the Court's preliminary construction, which is, quote, a  
09:14:59 23 fixed position inside the oral cavity that is used as a  
09:15:03 24 reference point for relating multiple sets of  
09:15:07 25 three-dimensional data to a fixed global reference

09:15:10 1 coordinate system.

09:15:13 2 If the plaintiff -- I'll ask the plaintiff first.

09:15:16 3 MR. BURGER: Your Honor, for the plaintiff, we

09:15:19 4 agree with the Court's construction.

09:15:21 5 THE COURT: Okay. Then I'll hear from the

09:15:23 6 defendants, please.

09:15:26 7 MR. BELANGER: Thank you, your Honor.

09:15:29 8 And, your Honor, I think the issues regarding  
09:15:33 9 this -- the construction of this term are simpler in terms  
09:15:37 10 of the issues regarding the first maybe four terms for  
09:15:43 11 construction.

09:15:44 12 And so, with your Honor's indulgence, I'd like to  
09:15:48 13 give some background as to why we think the definition of  
09:15:54 14 intra-oral fixed global registration position should  
09:15:58 15 include a sequence for timing as to when that position is  
09:16:01 16 fixed because we think that is the whole -- what the  
09:16:05 17 patentee described as a point of novelty and what  
09:16:09 18 plaintiffs themselves in their tutorial described as a  
09:16:13 19 point of novelty.

09:16:13 20 So if that would be acceptable for me to start  
09:16:15 21 with that background.

09:16:15 22 THE COURT: You can do whatever you'd like.

09:16:17 23 MR. BELANGER: Thank you, your Honor.

09:16:19 24 So I'd like to first start with slide 5, Jim.

09:16:28 25 MR. BURGER: Your Honor, I apologize for

09:16:29 1 interjecting. I'm going to have an objection to some of  
09:16:32 2 the slides. And so, maybe before we proceed with the  
09:16:37 3 slides, there are a number of slides that have taken  
09:16:44 4 screen shots from the plaintiff's technology tutorial, and  
09:16:48 5 my understanding is that that's not supposed to be a part  
09:16:52 6 of the record, according to the Court's rules.

09:16:55 7 And so, we would object to slides 12 through 15  
09:17:01 8 and 36 and 37 for that reason. So I apologize --

09:17:06 9 THE COURT: Well.

09:17:08 10 MR. BURGER: -- for not mentioning that when it  
09:17:09 11 was my turn to speak.

09:17:10 12 THE COURT: That's okay. Let me see how the  
09:17:13 13 defendant uses them, and then, I'll figure out whether I  
09:17:15 14 want to allow them to be made part of the record. I  
09:17:17 15 understand your objection and let me just see what is used  
09:17:23 16 -- what they're used for, okay? And I may wind up  
09:17:26 17 granting your objection. I appreciate you giving me a  
09:17:29 18 heads up. But I'll hear from counsel and I'll need to see  
09:17:32 19 the slides so I can make that decision.

09:17:36 20 MR. BELANGER: Thank you, your Honor.

09:17:36 21 And just -- well, I'll proceed with the argument  
09:17:42 22 and can discuss that when I get to the slides. Actually,  
09:17:46 23 if you'll turn to slide 6, Jim.

09:17:49 24 Your Honor, in terms of what this patent is  
09:17:52 25 directed to, to orient the Court, this is a statement from

09:17:58 1 the background of the patent, a description from the prior  
09:18:01 2 art. The concept of having a local coordinate space  
09:18:06 3 within global coordinate space is simply a observation of  
09:18:11 4 well-known mathematical concept.

09:18:13 5 And so, when the patent claim describes both  
09:18:19 6 local coordinate space and a global coordinate space, by  
09:18:22 7 definition the local coordinates are within the global  
09:18:26 8 coordinate space, and that is simply an observation of the  
09:18:30 9 mathematical relationship between physical objects.

09:18:34 10 We go to the next slide. So this is figure 1 of  
09:18:41 11 the patent. And just to ground the Court in these  
09:18:46 12 different terms and why we think they need to be related  
09:18:50 13 in a particular way, the patent in the claims describe a  
09:18:53 14 global coordinate space, which is simply the space which  
09:18:57 15 -- within which a patient might be found. The claims then  
09:19:02 16 in the specification describe this fixed global reference  
09:19:06 17 coordinate system, which is not simply points in space,  
09:19:13 18 but it is a coordinate system that is fixed from which  
09:19:17 19 relevant measurements can be made. And there's also a  
09:19:20 20 discussion of global reference coordinate systems, which  
09:19:24 21 are essentially subsets of this fixed global reference  
09:19:30 22 coordinate systems.

09:19:30 23 Go to the next slide, Jim. Actually, go to slide  
09:19:37 24 8. Or slide 9, excuse me. So in the patent, the  
09:19:42 25 left-hand column, your Honor, this is an excerpt from the

09:19:45 1 background of the patent. There's several prior art  
09:19:49 2 techniques that are described in the background of the  
09:19:51 3 patent. This is one of them. And there are generally two  
09:19:54 4 types of prior art that the patentee distinguished over in  
09:19:56 5 the background.

09:19:57 6 One type, you would have a reference point which  
09:20:01 7 is outside the oral cavity, and it's not really relevant  
09:20:05 8 to the dispute. But the second type of prior art which is  
09:20:09 9 discussed, and I believe is relevant to the construction  
09:20:11 10 of this term, is a series of prior art references that  
09:20:15 11 disclose the use of reference points within a local  
09:20:20 12 coordinate space or within the field of view. So this is  
09:20:22 13 one piece of prior art that the patentee distinguished  
09:20:25 14 over, and this shows camera 5 and it shows the reference  
09:20:28 15 points 6, and they are within the field of view of the  
09:20:34 16 camera 5.

09:20:35 17 And so, what the patentee acknowledges was known  
09:20:38 18 in the art is the use of these reference points to  
09:20:41 19 register and merge together multiple images or multiple  
09:20:48 20 three-dimensional images that are taken from different  
09:20:50 21 fields of view of the oral cavity. So this is  
09:20:53 22 acknowledged as known in the prior art.

09:20:56 23 If you go to the prior slide, slide 8. What the  
09:21:01 24 patentee goes on to describe and is a purported problem  
09:21:04 25 with this approach where if the measuring and imaging data

09:21:09 1 is captured first and then, merely stitched together by an  
09:21:13 2 analysis of the individual images, there's measurement  
09:21:18 3 error and propagation error introduced. And so, this is  
09:21:22 4 identified as one of the problems with those types of  
09:21:24 5 prior art systems which do not have or do not start with  
09:21:29 6 the fixed global reference point; rather, they use  
09:21:32 7 reference points that are fixed in a local coordinate  
09:21:36 8 space within the field of view.

09:21:37 9 And so, analyzing individual three-dimensional  
09:21:40 10 images, according to the patentee in the background, and  
09:21:43 11 simply stitching together or matching up those individual  
09:21:48 12 three-dimensional images leads to various problems that  
09:21:52 13 are identified. And so, if we go to slide 10, Jim. So in  
09:22:01 14 order to allegedly overcome this problem, what the  
09:22:03 15 patentee describes in the preferred embodiment is the use  
09:22:08 16 of a fixed global reference point.

09:22:12 17 In this example, that's item 28. And again, in  
09:22:16 18 an example that's shown as the origin of the fixed global  
09:22:22 19 coordinate system, that's  $Z_{sub G}$ ,  $O_{sub G}$ ,  $Y_{sub G}$ . So  
09:22:26 20 that  $sub G$  is global, and item 28 is a fixed point. And  
09:22:30 21 the preferred embodiment, again, there's a device that's  
09:22:34 22 attached to the patient's mouth that's fixed. And then,  
09:22:38 23 as far as distinguishing over the prior art, this allows  
09:22:41 24 the measuring and imaging device to take all the  
09:22:47 25 subsequent images and measurements with respect to that

09:22:50 1 fixed point.

09:22:51 2 So rather than having to later stitch together or  
09:22:55 3 piece together various images that are taken from  
09:22:58 4 different fields of view, without reference to the global  
09:23:02 5 coordinate system, what the patentee describes is starting  
09:23:05 6 with a fixed global coordinate system with a fixed initial  
09:23:10 7 reference point, and then, taking all the subsequent  
09:23:14 8 images and measurements with respect to that fixed point  
09:23:18 9 within a global coordinate space.

09:23:22 10 If we go to the next slide. So this is, again,  
09:23:28 11 what the patentee describes as their invention. So  
09:23:33 12 contrary to some cases, your Honor, where this is simply a  
09:23:39 13 description of a preferred embodiment, then this is what  
09:23:42 14 the patentee describes as the novel aspects of their  
09:23:45 15 invention. The key to their invention is that by fixing  
09:23:51 16 that global reference coordinate and having a fixed global  
09:23:55 17 coordinate space, that enables the real time and  
09:23:58 18 discontinuous acquisition of measurements and images.

09:24:03 19 So by having that reference point 28, if an image  
09:24:07 20 is taken within, in this example, a field of view which  
09:24:10 21 does not include that fixed reference point, the system is  
09:24:15 22 able to determine the physical location of that  
09:24:21 23 measurement within this global coordinate space; and  
09:24:24 24 that's in contrast, according to the applicant to the  
09:24:28 25 prior art where the reference point would need to begin

09:24:30 1 that local field of view and could not be outside of the  
09:24:34 2 field of view. And this is -- again, allegedly eliminates  
09:24:40 3 the propagation errors and any other problem of taking  
09:24:44 4 disparate images and stitching them together to create a  
09:24:47 5 three-dimensional object.

09:24:47 6 If we can go to the next slide, Jim. So this is  
09:24:52 7 the slide --

09:24:54 8 MR. BURGER: This is the slide that I would  
09:24:55 9 object to, your Honor.

09:24:56 10 MR. BELANGER: I don't intend to introduce this  
09:24:58 11 as evidence, your Honor. This is merely illustrative of  
09:25:01 12 what we think is the dispute. And as your Honor saw from  
09:25:04 13 the briefing, we believe that a sequence and an order is  
09:25:08 14 required by the claims when read in view of the  
09:25:11 15 specification and what the patentee described as its  
09:25:14 16 invention.

09:25:16 17 But we think another issue which is raised by the  
09:25:20 18 briefing is that the plaintiff, in certain instances,  
09:25:25 19 agree that a sequence is required by the claims and in  
09:25:32 20 other examples, disagree. So what we want from the  
09:25:33 21 Markman process is a clear understanding as to whether  
09:25:36 22 there is a sequence required or there's no sequence  
09:25:40 23 required. If there's no sequence required, that would  
09:25:42 24 open up a large field of prior art whereas if a sequence  
09:25:45 25 is required, we believe that comports with the proposed

09:25:50 1 constructions and is different than the Court's  
09:25:53 2 preliminary constructions for the reasons I'll try to  
09:25:56 3 explain.

09:25:56 4 So this is an analogy that plaintiffs included in  
09:26:00 5 their tech tutorial. I think it's just helpful for  
09:26:04 6 understanding what the crux of this is. In this example,  
09:26:08 7 taking a picture of the Austin courthouse by taking a  
09:26:12 8 series of images, which are then, according to the  
09:26:17 9 plaintiff, stitched together in a traditional manner by  
09:26:21 10 analyzing each of the images and seeing how they fit  
09:26:24 11 together. Think of this as you're putting together a  
09:26:27 12 jigsaw puzzle, and if you don't know ahead of time where  
09:26:30 13 the pieces go, you need to do some analysis of the jigsaw  
09:26:34 14 puzzle pieces in order to fit them together.

09:26:37 15 If you go to the next slide. What the plaintiff  
09:26:43 16 has said is the alleged novel aspect of the invention or  
09:26:48 17 the central insight is to establish a fixed reference  
09:26:53 18 point so that each time you take an image or you take a  
09:26:57 19 measurement, you know where it goes in relation to other  
09:27:00 20 points.

09:27:00 21 So in this example, they show you're taking one  
09:27:03 22 picture of the Austin courthouse with respect to the top  
09:27:07 23 of the roof. They put a red dot there. And by knowing  
09:27:09 24 that where that red dot is before you take the pictures,  
09:27:11 25 you can more easily piece them together.

09:27:19 1 If we could go to the next slide. So this is,  
09:27:21 2 again, from the tutorial images showing that what I think  
09:27:28 3 is consistent with the background, what the patentee  
09:27:29 4 describes as their invention, is establishing this  
09:27:31 5 reference point so that the measurement for distance or  
09:27:36 6 the location of the measurement could be determined with  
09:27:39 7 respect to that reference point.

09:27:41 8 Go to the next slide. Without any sequence, your  
09:27:45 9 Honor, using that same example, the claims would be on  
09:27:48 10 this admitted prior art approach where you're taking a  
09:27:51 11 series of images, stitching them together and then, at  
09:27:56 12 some later point in time, randomly assigning a reference  
09:27:59 13 point, which then can be measured with respect to  
09:28:04 14 individual images.

09:28:05 15 So in this analogy, if I took a panoramic view of  
09:28:10 16 the courthouse, I analyze each image, fit the puzzle  
09:28:14 17 pieces together in a way that is described as the  
09:28:16 18 background of the prior art, I could then, at a later  
09:28:19 19 point in time, simply identify the top of the courthouse  
09:28:23 20 as a fixed global reference point, and it will be trivial  
09:28:27 21 to measure how far each of the individual images were from  
09:28:30 22 that point. We don't believe that that is what the  
09:28:35 23 patentee described as their invention. And so, we think  
09:28:38 24 the claims should be limited such that the reference point  
09:28:41 25 is identified first, and the images are captured second.

09:28:45 1           However, we would respectfully submit that the  
09:28:48 2 Court's construction should clarify this point so that  
09:28:52 3 when we're evaluating prior art, it's either the claims  
09:28:55 4 should be read in sequence, as we propose, or if there is  
09:28:58 5 no sequence, the acknowledged prior art in many other  
09:29:03 6 references would be covered because you're simply able to,  
09:29:06 7 at any point in time, identify a fixed reference point  
09:29:09 8 with respect to individually captured three-dimensional  
09:29:13 9 images.

09:29:15 10           If we go to the next slide, please. So this --  
09:29:21 11 actually, in the interest of time, I'll skip ahead. If we  
09:29:23 12 can go to slide 20. This is, again, consistent with the  
09:29:31 13 example given in the tutorial. This is an example from  
09:29:34 14 plaintiff's expert's deposition where he explains the  
09:29:38 15 importance of this fixed reference point and having it  
09:29:42 16 fixed before the beginning of the imaging and measuring  
09:29:46 17 process. He described this as an analogy to a drone with  
09:29:50 18 a base station that once you fix the base station, it's  
09:29:51 19 fixed for the entire measuring and imaging mission so that  
09:29:55 20 you always know where the drone is with respect to the  
09:29:59 21 base station.

09:29:59 22           If the claims are read without that sequence,  
09:30:04 23 then that would open up a situation where you could simply  
09:30:09 24 later piece together where the drone happened to be with  
09:30:12 25 respect to the base station. But the base station could

09:30:14 1 be any random place, not a fixed place.

09:30:20 2 We can go to the next slide. And this is just to

09:30:23 3 highlight the point further, your Honor. This is from

09:30:25 4 plaintiff's reply brief where lawyer -- preliminary

09:30:29 5 construction says no sequence is required by the claims.

09:30:32 6 The plaintiff themselves argue for a sequence where the

09:30:37 7 acquisition step does not have to happen before the fixing

09:30:41 8 of the global registration position. However, they argue

09:30:45 9 that the later steps do require a consequence and require

09:30:50 10 that the global -- require the prior establishment of a

09:30:55 11 global reference position.

09:30:56 12 If I could go to slide 23. So the way we've

09:31:07 13 attempted to capture this in our proposed construction

09:31:10 14 and, I think, really the only difference in phrasing

09:31:13 15 between your preliminary construction and our proposed

09:31:19 16 construction is that the intra-oral fixed global

09:31:24 17 registration position is fixed prior to the measuring and

09:31:26 18 imaging. We believe that this is what the patentee

09:31:29 19 described as their invention, the patentee argued in the

09:31:32 20 background to distinguish over, acknowledged prior art.

09:31:36 21 And so, that's why we think it's appropriate to

09:31:39 22 say that this is -- to define in terms of claim

09:31:44 23 construction when this point must be fixed. Must it be

09:31:48 24 fixed before the imaging and measuring operation, or can

09:31:50 25 it simply be fixed at any later random point?

09:31:54 1 If I could go to slide -- the next slide, Jim.

09:31:56 2 So where this comes into most stark contrast, your Honor,

09:32:09 3 is with respect to claim 37. So with respect to claim 37,

09:32:14 4 you've got step (b), which uses the term "the measuring

09:32:20 5 and imaging device for measuring and imaging the

09:32:24 6 intra-oral objects, relative to same said intra-oral fixed

09:32:28 7 global registration position." And then, you have the

09:32:30 8 second step (c) which talks about the registration device,

09:32:34 9 relative to said same intra-oral fixed global registration

09:32:38 10 position.

09:32:39 11 So as we understand it, plaintiff has a --

09:32:41 12 MR. BURGER: Your Honor, I'll object that the

09:32:44 13 claim was not read properly.

09:32:50 14 MR. BELANGER: I am trying to do my best. If I

09:32:52 15 left out --

09:32:52 16 MR. BURGER: I apologize. You've left out some

09:32:54 17 words and I do believe that they're relevant. So I

09:32:58 18 thought it's important for the record to raise that

09:33:00 19 objection.

09:33:01 20 THE COURT: Okay.

09:33:03 21 MR. BELANGER: The claim as on the screen or are

09:33:06 22 you saying that the screen is not accurate?

09:33:07 23 MR. BURGER: No, no. Just what you were reading

09:33:09 24 out loud omitted some words. And so, I want to make sure

09:33:13 25 that the transcript is accurate.

09:33:16 1 MR. BELANGER: So the -- let me just back up and  
09:33:20 2 try to make that point clearly, your Honor.  
09:33:23 3 There are two steps in claim 37. Both steps (b)  
09:33:28 4 and (c) use the identical phrase "relative to same said  
09:33:33 5 intra-oral fixed global registration position." Plaintiff  
09:33:38 6 and their expert and in the briefing admit that in step  
09:33:43 7 (c), relative to same said intra-oral fixed global  
09:33:47 8 registration position requires that the intra-oral fixed  
09:33:51 9 global registration position be fixed in advance of for  
09:33:58 10 step (c), recording global positions and orientations of  
09:34:03 11 said measuring and imaging device.

09:34:07 12 We believe for consistency, therefore, step (b)  
09:34:09 13 should, likewise, be read that the measuring and imaging  
09:34:13 14 device for measuring and imaging the intra-oral objects  
09:34:17 15 and features located in the oral cavity relative to same  
09:34:20 16 said intra-oral fixed global registration position  
09:34:23 17 requires that the measuring and imaging happen after the  
09:34:28 18 establishment of the intra-oral fixed global registration  
09:34:33 19 position. So this identical language is used in both.

09:34:36 20 Plaintiffs had argued that use of that language  
09:34:38 21 requires a sequence, and the sequence that is required is  
09:34:41 22 first establishing said intra-oral fixed global  
09:34:45 23 registration position prior to doing the measurement step.  
09:34:51 24 And so, we believe that same interpretation should apply  
09:34:53 25 for both. And therefore, for step (b), the intra-oral

09:34:56 1 fixed global registration must be fixed before the  
09:35:01 2 measuring and imaging of the features in the oral cavity.  
09:35:09 3 Go to the next slide, Jim. And this is  
09:35:16 4 consistent, your Honor, with claim 1, as well, the  
09:35:21 5 phrasing in the claim, and is consistent with what the  
09:35:23 6 patentee -- this is on the right-hand side of slide 25  
09:35:26 7 where the patent describes their invention, which is the  
09:35:32 8 identification of this fixed global registration point in  
09:35:35 9 advance of the imaging and measuring steps.

09:35:41 10 So with that, I would defer to plaintiff's  
09:35:45 11 counsel and unless your Honor has any questions or  
09:35:50 12 anything that you would like me to clarify.

09:35:52 13 THE COURT: Hold on one second.

09:39:01 14 Gentlemen, thank you for the -- whoops.  
09:39:06 15 Gentlemen, thank you for the opportunity. I discussed it  
09:39:11 16 with my clerks, who helped me prepare the preliminary  
09:39:18 17 claim constructions. The Court is going to maintain its  
09:39:21 18 construction of this claim term as "a fixed position  
09:39:25 19 inside the oral cavity that is used as a reference point  
09:39:28 20 for relating multiple sets of three-dimensional data to a  
09:39:33 21 fixed global reference coordinate system."

09:39:36 22 I'll go ahead and put on the record that the  
09:39:39 23 Court finds that there is no requirement in the claim for  
09:39:44 24 a fixed position being defined inside the oral cavity  
09:39:47 25 prior to measuring and imaging. And in fact, the Court

09:39:51 1 will go further, if it's helpful to you all on other claim  
09:39:55 2 terms we're going to take up, to say that the Court is not  
09:40:00 3 going to find that the claims require any sequencing, if  
09:40:04 4 that helps with other arguments that are going to come  
09:40:08 5 about.

09:40:09 6 The next claim term I have to take up is from the  
09:40:15 7 707 patent claim, quote, a fixed global reference  
09:40:21 8 coordinate system. The Court's construction is plain and  
09:40:27 9 ordinary meaning wherein the plain and ordinary meaning is  
09:40:30 10 a reference system used to define the locations of objects  
09:40:37 11 in the inter-oral -- and that is "inter" because I noticed  
09:40:42 12 that we have "inter" and "intra" occasionally. I want to  
09:40:44 13 make sure that I state correctly on the record -- objects  
09:40:47 14 in the inter-oral cavity and whose origin point is fixed  
09:40:52 15 at a single location within the inter-oral cavity.

09:40:57 16 I'll hear first from the plaintiff. I know the  
09:41:00 17 plaintiff submitted a proposed construction of plain and  
09:41:03 18 ordinary meaning, but I want to find out whether or not  
09:41:05 19 the Court's explanation of what a plain and ordinary  
09:41:11 20 meaning should be is acceptable with plaintiff's counsel.

09:41:15 21 MR. BURGER: Your Honor, for the plaintiff, we  
09:41:19 22 agree with the Court's construction. And in fact, we  
09:41:21 23 submitted slides that demonstrate the support in the  
09:41:28 24 specification that supports the Court's preliminary  
09:41:32 25 construction.

09:41:32 1                   THE COURT: Thank you very much.

09:41:34 2                   With regard to defendant, I'll hear from you with

09:41:36 3 respect to any suggestions you have with what the Court

09:41:40 4 could do to improve or amend what it has proposed, or

09:41:45 5 whether or not you just agree with it as it is.

09:41:48 6                   MR. BELANGER: I think, your Honor, consistent

09:41:50 7 with your -- the comment you just made, the primary issue

09:41:55 8 we have with the Court's proposed construction is clarity

09:42:00 9 on when the origin needs to be fixed. And our --

09:42:04 10 respectfully, our belief is, it should be fixed prior to

09:42:08 11 the measuring and imaging. But if the Court's ruling is,

09:42:10 12 it could be fixed at any time, there's no requirement of

09:42:13 13 timing, we would understand that. We just want clarity as

09:42:19 14 to that.

09:42:19 15                   THE COURT: You have that clarity and you also --

09:42:22 16 and by the way, let me make absolutely clear on the

09:42:25 17 record. If you disagreed with my constructions, I

09:42:32 18 absolutely want you -- to make sure you keep that on the

09:42:34 19 record, I want -- I absolutely want to protect your

09:42:37 20 record. I'm -- I can do anything I want: that doesn't

09:42:43 21 mean I'm always right when I'm doing it at this time. So

09:42:46 22 I'm doing the best I can. Doesn't mean I'm absolutely

09:42:49 23 right.

09:42:50 24                   However, so if the way the Court is going to take

09:42:55 25 what you said is that you would -- and I'll add in there

09:43:01 1 the word "respectfully disagree" with what I've said -- I  
09:43:06 2 had a lawyer last week that gave me a grade of zero on one  
09:43:08 3 of my claim constructions, so at least he didn't say that.

09:43:11 4 But I'm going to note for the record that you  
09:43:13 5 disagree with the Court's decision that the claim does not  
09:43:18 6 require any sequence, and you have that concern and  
09:43:22 7 objection to the Court's proposal for what my plain and  
09:43:25 8 ordinary meaning is.

09:43:25 9 Does the defendant have any other construction  
09:43:28 10 they'd like -- I'm sorry, objection they'd like to raise?

09:43:32 11 MR. BELANGER: No. Not other than the sequencing  
09:43:35 12 point that we've raised already, your Honor.

09:43:35 13 THE COURT: Okay. Well, then, with your consent,  
09:43:37 14 I would probably move on to the next -- unless you have  
09:43:40 15 something you want to add, I would move on to the next  
09:43:42 16 claim term.

09:43:44 17 MR. BELANGER: That's fine, your Honor.

09:43:45 18 THE COURT: Okay. The next claim term is -- and  
09:43:50 19 again, to make clear on the record because I don't know if  
09:43:52 20 I said this out loud. Then the Court is going to adopt  
09:43:56 21 and make permanent what I just read into the record as the  
09:44:01 22 proposed construction for the claim term "a fixed global  
09:44:06 23 reference coordinate system," noting the defendants'  
09:44:10 24 objections with respect to their belief that it does  
09:44:13 25 require sequence and the Court's determination it does

09:44:17 1 not.

09:44:18 2 The next claim term is from the 707 patent claim  
09:44:23 3 1. The claim term is "a measuring and imaging device for  
09:44:29 4 measuring and imaging the intra" -- that's I-N-T-R-A --  
09:44:35 5 "intra-oral objects and features." The Court's  
09:44:38 6 construction and determination is that it is not subject  
09:44:42 7 to Section 112, paragraph 6, and that it should have its  
09:44:47 8 plain and ordinary meaning.

09:44:47 9 I'll hear first from the plaintiff. I assume  
09:44:51 10 because that was your proposal, as well, that you are okay  
09:44:56 11 with the Court's. But I'll hear from you on the record.

09:44:58 12 MR. BURGER: That's correct, your Honor. Thank  
09:45:00 13 you.

09:45:00 14 THE COURT: Okay. Now I'll hear from defendant  
09:45:04 15 who believe that it was subject to Section 112, paragraph  
09:45:09 16 6, and/or is indefinite. I'll hear from the defendant  
09:45:14 17 with respect to the Court's determination and preliminary  
09:45:16 18 construction.

09:45:17 19 MR. BELANGER: Thank you, your Honor.

09:45:19 20 Mr. Liu is going to take that term. But just one  
09:45:23 21 clarification.

09:45:24 22 THE COURT: Yes, sir.

09:45:24 23 MR. BELANGER: Regarding the difference between  
09:45:26 24 inter and intra-oral. I know you noted that there's a  
09:45:30 25 difference, but it wasn't clear to us that that was --

09:45:36 1                   LAW CLERK: That was my mistake. It's probably  
09:45:39 2 supposed to be intra-oral.

09:45:39 3                   THE COURT: Okay.

09:45:39 4                   LAW CLERK: Yeah. So that's my mistake.

09:45:39 5                   THE COURT: Yeah. I may be -- I may have  
09:45:44 6 mistaken on what I'm reading here. If I'm misreading it,  
09:45:47 7 let me know. That's why I was trying to pick it up.  
09:45:49 8 There may be a mistake in what I have typed here. Let's  
09:46:02 9 make sure that I have down what the appropriate -- what  
09:46:05 10 the correct language is.

09:46:11 11                   MR. BELANGER: So, your Honor, the claim language  
09:46:14 12 itself is I-N-T-R-A, intra. And I believe your  
09:46:20 13 preliminary uses an E, instead of an A. And so, I think  
09:46:24 14 if we just replaced I-N-T-E-R with I-N-T-R-A, that would  
09:46:30 15 comport with the claim language.

09:46:31 16                   THE COURT: Okay. Very good. Thank you for  
09:46:33 17 bringing that to my attention.

09:46:34 18                   MR. BELANGER: Thank you, your Honor. And Mr.  
09:46:37 19 Liu will address the next term.

09:46:38 20                   THE COURT: Okay. Thank you. Thank you very  
09:46:40 21 much.

09:46:41 22                   MR. LIU: Good morning, your Honor.

09:46:42 23                   THE COURT: Good morning.

09:46:45 24                   MR. LIU: Frank Liu on behalf of the 3Shape  
09:46:48 25 Defendants.

09:46:49 1 I'll be addressing --

09:46:49 2 THE COURT: I don't think I've had you in my

09:46:51 3 court before. Welcome. I'm glad to have you.

09:46:54 4 MR. LIU: Thank you, your Honor.

09:46:55 5 I'll be addressing the measuring and imaging

09:46:57 6 device limitation.

09:46:58 7 THE COURT: Okay.

09:46:59 8 MR. LIU: We believe the term "measuring and

09:47:02 9 imaging device" is one that's subject to 112, paragraph 6,

09:47:05 10 under prevailing Federal Circuit case law. And under 112,

09:47:10 11 paragraph 6, construction, we believe the specification

09:47:12 12 fails to provide an adequate disclosure of the

09:47:16 13 corresponding structure for the measuring and imaging

09:47:20 14 device, which would render the claim term indefinite.

09:47:22 15 I plan to address the threshold question of

09:47:26 16 measuring and imaging -- of whether the measuring and

09:47:28 17 imaging device is subject to 112, paragraph 6, first

09:47:31 18 unless the Court would like me to address any other

09:47:34 19 particular issues with respect to this term.

09:47:46 20 Jim, can you pull up slide 46? I think it's

09:47:57 21 helpful to review the standard governing the construction

09:48:01 22 under 112, paragraph 6. The recent Federal Circuit case

09:48:06 23 law confirms that the test for determining whether a term

09:48:10 24 is subject to 112, paragraph 6, is whether the claim term

09:48:14 25 connotes sufficiently definite structure. So if the claim

09:48:17 1 term fails to connote sufficiently definite structure,  
09:48:21 2 then you need to identify the corresponding structure in  
09:48:24 3 the specification for performing that claim function.

09:48:28 4 The Federal Circuit in the MTD Products vs. Iancu  
09:48:34 5 case, which was --

09:48:34 6 THE COURT: Mr. Liu.

09:48:36 7 MR. LIU: Yes.

09:48:41 8 THE COURT: I found after two years now -- I'll  
09:48:43 9 just go ahead and state on the record. I'm sure two years  
09:48:44 10 ago, my patience would have been much greater, but I'll  
09:48:48 11 tell you that I'm pretty current on this law. I deal with  
09:48:55 12 this probably about four times a month at these Markmans.  
09:48:59 13 So I don't mean to sound offensive but I'm -- my clerks  
09:49:05 14 and I are really current on this, so you can probably  
09:49:07 15 skip -- skip the case citations.

09:49:11 16 MR. LIU: Okay. Thank you, your Honor.

09:49:13 17 And I think just the most important point from  
09:49:16 18 the MTD Products vs. Iancu case is that there's two  
09:49:21 19 separate steps, and what it makes clear is that you can't  
09:49:24 20 just go to the specification and point to some structure  
09:49:27 21 and say 112, paragraph 6, applies. And I think that's the  
09:49:30 22 relevant dispute here.

09:49:32 23 We think that Densys in their briefing and  
09:49:35 24 argument is going straight to the specification,  
09:49:38 25 identifying some structure that purports to correspond to

09:49:42 1 the measuring and imaging device and saying that's  
09:49:47 2 sufficient to defeat 112, paragraph 6 -- to avoid a 112,  
09:49:51 3 paragraph 6, construction. So we think that's the issue  
09:49:53 4 here, and we think that's inconsistent with the recent  
09:49:56 5 Federal Circuit case law on this.

09:50:06 6 Could we go to slide 48. Looking at the claim  
09:50:16 7 language, it's clear that the measuring and imaging device  
09:50:19 8 is recited in a means-plus-function format. While the  
09:50:23 9 term doesn't use -- expressly use the term "means," it  
09:50:28 10 takes the function that's recited, which is measuring and  
09:50:32 11 imaging, and appends the nonce word "device" onto the end  
09:50:36 12 of it. So essentially what they're doing is, they're  
09:50:39 13 trying to claim any structure that falls within that can  
09:50:45 14 perform the functions of measuring and imaging, and that's  
09:50:50 15 consistent with how means-plus-function claims are  
09:50:54 16 written. And there's nothing in the claim language to  
09:50:57 17 suggest that there's some connotation of structure with  
09:51:02 18 respect to the measuring and imaging device.

09:51:04 19 I think as the Court probably has seen the  
09:51:10 20 Williamson vs. Citrix case, notes that terms like "device"  
09:51:15 21 such as it's used here are typically insufficient to  
09:51:20 22 connote structure. And so, we submit, your Honor, that  
09:51:22 23 the term "measuring and imaging device" is a term that is  
09:51:29 24 -- that fails to connote sufficient structure.

09:51:36 25 We'll also note on the record that the term

09:51:41 1 "measuring and imaging device" is not a term that has an  
09:51:44 2 understood meaning in the art. There's no dictionary  
09:51:51 3 definition or treatise that uses the term "measuring and  
09:51:54 4 imaging device." So I think that highlights the fact that  
09:51:57 5 measuring and imaging device is not a term that has an  
09:52:00 6 understood meaning in the art, and that really, the  
09:52:03 7 patentee is trying to just use the term "measuring and  
09:52:07 8 imaging device" to refer to any structure that's being  
09:52:10 9 used to perform the functions of measuring and imaging.  
09:52:13 10 And again, that's consistent with how means-plus-function  
09:52:16 11 claims are written. And we submit, your Honor, that that  
09:52:21 12 would subject the claim term to 112, paragraph 6.

09:52:28 13 And if we go to slide 49. And the way that  
09:52:34 14 measuring device and imaging device is claimed, it's  
09:52:38 15 claimed consistently between the two independent claims.  
09:52:40 16 So for in the previous slide, go to claim 37, they recited  
09:52:47 17 that the measuring and imaging device was for measuring,  
09:52:51 18 imaging the intra-oral objects and features located in the  
09:52:54 19 intra-oral cavity, the same language appears in claim 1.

09:52:57 20 If we could go to slide 50. And consistent with  
09:53:09 21 this means-plus-function claiming format, the  
09:53:13 22 specification really describes the measuring and imaging  
09:53:18 23 devices in terms of a black box. It illustrates  
09:53:23 24 essentially a box in figure 1 of the specification. And  
09:53:27 25 the intent by the patentee was really to signify that any

09:53:32 1 type of device or structure mechanism that could be used  
09:53:38 2 for the measuring -- to perform the functions of measuring  
09:53:42 3 and imaging device would be within the scope, and I think  
09:53:44 4 that's largely confirmed by the specification.

09:53:47 5 If we could go to the slide 51. So looking at  
09:53:57 6 the specification 707 patent at column 16, lines 22  
09:54:02 7 through 44, it's apparent that the patentee had intended  
09:54:12 8 to capture the measuring and imaging device in a  
09:54:18 9 means-plus-function format when they recite the various  
09:54:22 10 different types of mechanisms that could be used to  
09:54:27 11 perform the functions of measuring and imaging. They  
09:54:30 12 provide a long laundry list of mechanisms, and a lot of  
09:54:34 13 these are from various disparate categories, and a lot of  
09:54:39 14 them are very vague in nature.

09:54:42 15 So, for example, electronic -- electrical and  
09:54:47 16 electronic mechanisms, those categories -- those  
09:54:50 17 identified categories alone could virtually cover any type  
09:54:54 18 of measuring and imaging device that performs the  
09:54:58 19 functions of measuring and imaging.

09:55:11 20 And going to slide 52. And not to belabor the  
09:55:17 21 case law, but I think the MTD Products vs. Iancu case  
09:55:22 22 further highlights the fact that if there's nothing in the  
09:55:25 23 specification to kind of -- to cabin the scope of the  
09:55:28 24 functional term, it lends itself to the conclusion that  
09:55:32 25 the claim was intended to be written as a

09:55:35 1 means-plus-function format.

09:55:36 2 And we think the specification's consistent with  
09:55:38 3 that analysis. The specification provides a vague laundry  
09:55:42 4 list of mechanisms that could be used, and it doesn't  
09:55:45 5 really try to define any kind of particular scope or  
09:55:50 6 suggest any kind of particular structure that would be  
09:55:52 7 used for the means-plus -- for the measuring and imaging  
09:55:55 8 device.

09:55:55 9 And so, virtually any structure that could  
09:55:58 10 perform the functions of measuring and imaging would  
09:56:03 11 theoretically fall within the scope of the measuring and  
09:56:05 12 imaging device. And because of that, your Honor, we  
09:56:13 13 believe that the term "measuring and imaging device" is  
09:56:17 14 subject to 112, paragraph 6.

09:56:21 15 THE COURT: If I could hear a response.

09:56:26 16 MR. BURGER: Your Honor, were you addressing me?

09:56:32 17 THE COURT: You're the only other lawyer on --

09:56:37 18 MR. BURGER: Yes. There's a number of things  
09:56:40 19 that Mr. Liu said that I'd like to clarify.  
09:56:48 20 So first, he said that the defendants jumped  
09:56:52 21 straight to the specification and ignored the claim terms,  
09:56:56 22 and that's entirely untrue. In fact, I had a footnote  
09:57:01 23 where I listed 38 structural elements of the measuring and  
09:57:06 24 imaging device that are found in dependent claims. And  
09:57:11 25 the claims that counsel put on the screen just now were

09:57:19 1 broad independent claims, but he didn't address the  
09:57:22 2 dependent claims at all. And in fact, you'll see that the  
09:57:27 3 structural limitations do appear in the claims, and we  
09:57:30 4 have extensive briefing about why that means that 112,  
09:57:38 5 paragraph 6 doesn't apply.

09:57:39 6 Let me -- if I may show you a few slides that  
09:57:47 7 I've prepared. Just give me one moment to get that up.  
09:58:12 8 All right. Before I get into some very specific  
09:58:23 9 structural limitations that are found in the claims  
09:58:25 10 themselves, I'd also like to correct something that -- a  
09:58:31 11 different slide that counsel just showed, which was figure  
09:58:35 12 1 of the 707 patent, and he highlighted a small purple box  
09:58:43 13 to be the measuring and imaging device.

09:58:44 14 In fact, when we know from claim 53 that the  
09:58:48 15 measuring and imaging device also includes a position and  
09:58:55 16 orientation guide. And the position orientation guide is  
09:59:00 17 a rod that is attached to the, you know, for lack of a  
09:59:08 18 better term, the camera and other types of devices that  
09:59:13 19 are specifically discussed as acquiring measurements and  
09:59:22 20 images. And so, the specification tells us that this rod,  
09:59:25 21 which is a part of the measuring and imaging device, can  
09:59:29 22 be made out of plastic or glass and has limitations  
09:59:36 23 relating to not irritating the intra-oral cavity.

09:59:39 24 So while this isn't the totality of the measuring  
09:59:45 25 and imaging device, it is a part of the measuring and

09:59:47 1 imaging device, and it is certainly something that can  
09:59:51 2 connotes structure. And this is illustrated here where, I  
09:59:59 3 believe, the measuring and imaging device was highlighted  
10:00:02 4 only as the box -- well, when counsel put the slide up, he  
10:00:07 5 only highlighted box 54, but in fact, the measuring and  
10:00:12 6 imaging device also includes a structural handle.

10:00:15 7 And so -- and beyond the portions of the  
10:00:25 8 specification that counsel alluded to, there are other  
10:00:32 9 portions of the specification that discuss the structure,  
10:00:35 10 the measuring and imaging device. Indeed, we know that  
10:00:38 11 the measuring and imaging device can be, quote, an  
10:00:43 12 ultrasound measuring and imaging probe. And this is a  
10:00:48 13 quote from the deposition transcript of defendants'  
10:00:53 14 expert, Dr. Parris Egbert, where he agreed that an  
10:00:58 15 ultrasound measuring and imaging probe has structure.

10:01:07 16 And so, let me think if there's any other points  
10:01:15 17 I'd like to respond to. But just I suppose I'd ask your  
10:01:20 18 Honor if there's anything that you'd like me to respond to  
10:01:24 19 further.

10:01:31 20 THE COURT: No. I'm fine.

10:01:33 21 Mr. Liu.

10:01:34 22 MR. LIU: Yeah. And so, I'll take the points  
10:01:36 23 that Densys' counsel raised.

10:01:40 24 So first, with regards to his response to the  
10:01:44 25 argument that they're jumping straight into the

10:01:46 1 specification to find structure to avoid 112, paragraph 6,  
10:01:50 2 I think their argument -- the arguments that they actually  
10:01:52 3 made in the briefing, specifically, the footnote that they  
10:01:55 4 pointed out, actually highlights that point.

10:01:58 5 The footnote that counsel referenced to that  
10:02:05 6 footnote was merely referring -- was pointing, again, to  
10:02:09 7 the specification to identify various structures, but we  
10:02:14 8 know that it's improper to just go straight to the  
10:02:19 9 specification, point out one or two example structures and  
10:02:22 10 say 112, paragraph 6, doesn't apply.

10:02:24 11 The same thing also applies with regard to the  
10:02:27 12 dependent claims. As you know, your Honor, dependent  
10:02:33 13 claims further specify a term, but they don't purport to  
10:02:37 14 limit the term in which it appears in the independent  
10:02:41 15 claim. Put it another way, the various different  
10:02:44 16 structures relayed in the independent claim, those aren't  
10:02:47 17 limiting on the measuring and imaging device that's  
10:02:52 18 recited in claim 1.

10:02:53 19 And so, we don't think that those dependent  
10:02:56 20 claims actually help Densys' argument where providing any  
10:03:03 21 type of meaningful scope as to the structure of the  
10:03:08 22 measuring and imaging device.

10:03:10 23 Second point, Densys' counsel raised an argument  
10:03:16 24 with regards to the position and orientation guide. As  
10:03:20 25 counsel described it, it's essentially a rod that's

10:03:23 1 attached to the measuring and imaging device, and all its  
10:03:29 2 function is is to move the device around. And that's not  
10:03:32 3 actually relevant to the means-plus-function analysis  
10:03:34 4 because in order to determine whether a structure --  
10:03:39 5 whether a term connotes structure, you have to look at the  
10:03:43 6 alleged structures and see if they're actually performing  
10:03:45 7 the claim function.

10:03:46 8 Here, the claim function is measuring and imaging  
10:03:51 9 intra-oral objects. It's clear that that position and  
10:03:54 10 orientation guide is not performing that function. Its  
10:03:57 11 whole purpose is just a rod attached to the measuring and  
10:04:00 12 imaging device to move it around. So we don't think  
10:04:02 13 that's relevant to the analysis.

10:04:05 14 And then, lastly, counsel raised the structure of  
10:04:09 15 an ultrasound probe, and he cited to testimony from our  
10:04:14 16 expert to apparently suggest that because our expert  
10:04:20 17 acknowledged that one could conceivably understand what  
10:04:23 18 the structure of an ultrasound probe is, that there would  
10:04:28 19 be sufficient structure connoted to the term "measuring  
10:04:32 20 and imaging device." And again, I think this is  
10:04:33 21 consistent with the way that Densys has presented their  
10:04:39 22 argument is, they just go straight to the specification,  
10:04:42 23 identify various examples of structures and say 112,  
10:04:46 24 paragraph 6, doesn't apply.

10:04:47 25 And again, we'd submit, your Honor, that that's

10:04:51 1 inconsistent with how recent Federal Circuit case law  
10:04:57 2 addresses the means-plus-function analysis, and we request  
10:04:59 3 that you disregard those arguments by Densys.

10:05:09 4 THE COURT: Thank you. I'll be back with you all  
10:05:11 5 in just a couple of seconds.

10:05:40 6 I'd like to again, at this point, say what I say  
10:05:43 7 a lot, which is, I'm always -- I'm very blessed to have  
10:05:47 8 this job because I have really good lawyers who make these  
10:05:52 9 arguments. They're very sophisticated and usually do a  
10:05:58 10 very good job on both sides, and that was true here.

10:06:03 11 But the Court is going to maintain its  
10:06:06 12 preliminary claim construction and make it a final claim  
10:06:08 13 construction and find that this claim term is not subject  
10:06:11 14 to Section 112, paragraph 6, and it is going to give it  
10:06:16 15 its plain and ordinary meaning. It's going to find that  
10:06:18 16 it is not indefinite.

10:06:23 17 I'm going to move on to the claim term from the  
10:06:25 18 707 patent, which is "recording said global position of  
10:06:30 19 said measuring and imaging device relative to said  
10:06:34 20 intra-oral fixed global registration position" and  
10:06:38 21 "measuring and recording global positions and orientations  
10:06:42 22 of said measuring and imaging device" related -- "relative  
10:06:47 23 to same said intra-oral fixed global registration  
10:06:50 24 positions."

10:06:51 25 The plaintiff's construction was plain and

10:06:54 1 ordinary meaning for both terms. The Court has adopted  
10:06:56 2 that. I assume -- I'll start with the plaintiff. I  
10:06:59 3 assume that the plaintiff is okay with the Court's  
10:07:03 4 preliminary construction.

10:07:04 5 MR. BURGER: Yes, your Honor.

10:07:05 6 THE COURT: I'll hear from defense counsel.

10:07:13 7 MR. BELANGER: I was on mute. I apologize, your  
10:07:15 8 Honor.

10:07:15 9 I'd like to start, your Honor, by going to slide  
10:07:25 10 29. And I think the crux of the dispute, your Honor, is  
10:07:35 11 whether this term "relative to" requires some knowledge  
10:07:46 12 within the system of the relationship between the  
10:07:52 13 measuring and imaging device and the intra-oral fixed  
10:07:57 14 global registration position; and by simply saying that  
10:08:01 15 the term has its plain and ordinary meaning may not  
10:08:04 16 resolve that dispute.

10:08:07 17 If there -- in our mind, two ways that this could  
10:08:13 18 be read. One way would be that it's simply acknowledging  
10:08:19 19 a law of nature, which is every local portion of the mouth  
10:08:29 20 has some relation to every other portion of the mouth. So  
10:08:35 21 in this example in figure 1, it shows a field of view K  
10:08:40 22 where you're taking a measurement and image of certain  
10:08:45 23 teeth, and then, it shows apart from that, this intra-oral  
10:08:50 24 global -- fixed global registration position.

10:08:53 25 In our understanding, the entire discussion in

10:08:57 1 the patent is that a measurement or calculation is  
10:09:01 2 performed so that the system knows where the measuring and  
10:09:07 3 imaging device is relative to that fixed global  
10:09:11 4 registration position when it takes the measurement.

10:09:17 5 In the broadest reading of "relative to," you  
10:09:20 6 could eliminate that item 74, which is showing some  
10:09:24 7 communication or calculation and simply say, I'm taking a  
10:09:31 8 local measurement, and that local measurement by  
10:09:34 9 definition is relative to all other points in the mouth.  
10:09:39 10 And so, respectfully, your Honor, we think clarification  
10:09:41 11 on that point would be helpful.

10:09:45 12 We propose a construction where there was a  
10:09:48 13 measurement required because that is what the patentee  
10:09:50 14 describes when describing the novel aspects of the  
10:09:54 15 invention. That's what plaintiff's tutorial describes as  
10:09:57 16 the novel aspect of the invention is performing a  
10:10:01 17 measurement between the measuring and imaging device and  
10:10:03 18 that fixed global reference point.

10:10:06 19 But we understand the Court's construction of  
10:10:09 20 plain meaning. We're just concerned that may not resolve  
10:10:12 21 the dispute as we may hear plaintiff later try to  
10:10:15 22 distinguish the prior art by observing that there's no  
10:10:18 23 measurement or calculation performed to determine how far  
10:10:25 24 away the measuring and imaging device is from some other  
10:10:27 25 fixed point within the oral cavity.

10:10:34 1           And just in summary, your Honor, we don't believe  
10:10:36 2 there's any description other than a measurement.  
10:10:39 3 Plaintiffs in their brief and their slides point to a  
10:10:42 4 calculation, but in this art, the calculation is simply  
10:10:47 5 another way to describe the measurement when the end  
10:10:53 6 result of the calculation is an indication of relative  
10:10:56 7 position between two points.

10:10:58 8           Unless your Honor has additional questions.

10:11:04 9           THE COURT: Thank you very much. I'll be right  
10:11:05 10 back. Thank you for that break.

10:12:18 11           The Court is going to go with plain and ordinary  
10:12:20 12 meaning for both terms and -- but the Court wanted to put  
10:12:23 13 a couple of things on the record, as well. The Court is  
10:12:34 14 concerned that "measured from" doesn't really add  
10:12:43 15 anything, doesn't -- isn't really -- doesn't really focus  
10:12:46 16 down or help very much. And also, I mean -- and I say  
10:12:52 17 that in the context -- not to take that. I'm saying that  
10:12:56 18 -- which is kind of a fraction of a thought, but in the  
10:12:59 19 context of the way that the briefing was done and the  
10:13:03 20 suggestion that use of the words "imaging device measured  
10:13:10 21 from" would assist in correcting any problems there were  
10:13:13 22 with the claim language, the Court finds that does not --  
10:13:17 23 it is not helpful.

10:13:18 24           And also, just because of the conflict between  
10:13:26 25 the plaintiff's construction of ordinary meaning and the

10:13:30 1 defendants' constructions here, their proposed, the Court  
10:13:33 2 finds for purposes of you all going forward that the  
10:13:36 3 defendants' proposed constructions would not be the plain  
10:13:41 4 and ordinary meaning of these claim terms for purposes of  
10:13:44 5 dealing with your experts.

10:13:45 6 I will move on to patent claim 707 with regard to  
10:13:56 7 registering local coordinate -- it says -- I skipped -- I  
10:14:01 8 should have included this. I should have included  
10:14:05 9 everything. There is a little letter (f) and then, it  
10:14:07 10 says "registering local coordinate space pixel positions  
10:14:11 11 in each of said plurality of globally recorded  
10:14:16 12 three-dimensional measurements and images with  
10:14:19 13 corresponding global coordinate space pixel position."

10:14:25 14 And then also, we're thinking we may be able to  
10:14:33 15 skip this one, given what we discussed earlier, but I  
10:14:36 16 would ask counsel if that's correct. Not that you don't  
10:14:40 17 want to maintain the concerns that you raised earlier, and  
10:14:43 18 I would keep those on the record, but our sense is that we  
10:14:48 19 will cover those. But let me make clear, if either side  
10:14:51 20 wants to make any argument about either, I'm completely  
10:14:55 21 open to hearing it at this time.

10:14:58 22 MR. BELANGER: Yes --

10:14:59 23 THE COURT: So I'll start -- go ahead. I'm  
10:15:00 24 sorry. Go ahead, please.

10:15:02 25 MR. BELANGER: Do you want to start with me or

10:15:04 1 plaintiff?

10:15:04 2 THE COURT: Yes. That will be fine.

10:15:06 3 MR. BELANGER: Thank you, your Honor.

10:15:06 4 So I think you're correct. This was a sequence  
10:15:09 5 of steps argument which we put forward in the briefing. I  
10:15:15 6 would just note for the record, we think the argument as  
10:15:18 7 of this phrase, the sequence is imparted in part by the  
10:15:22 8 discussion of the novelty of the patent, which I addressed  
10:15:25 9 earlier in my argument but, also, just based on a plain  
10:15:29 10 reading of the language where step (f) requires something  
10:15:34 11 that is -- does not exist until the performance of step  
10:15:39 12 (e), which is this plurality of globally recorded  
10:15:44 13 three-dimensional measurements. But it is an argument  
10:15:47 14 about sequence.

10:15:48 15 And so, respectfully, we understand the Court's  
10:15:50 16 ruling. Happy to answer any questions that are unique to  
10:15:54 17 this term, but I think it is the same.

10:15:55 18 THE COURT: Okay. And I'll put on the record at  
10:16:00 19 a macro level again, the Court doesn't believe sequencing  
10:16:05 20 is required. On a micro level with respect to this  
10:16:08 21 specific claim term, the Court specifically does not  
10:16:10 22 believe that (f) is required to occur after step -- for my  
10:16:16 23 court reporter, that little letter (f) must occur after  
10:16:21 24 step little letter (e). I know I sound like I'm talking  
10:16:26 25 to third graders. I'm just trying to make sure it's clear

10:16:28 1 on the record for Lily what I'm trying to say here.

10:16:32 2 The defendants' construction was -- I'm just

10:16:36 3 going to quote the first part of it -- little "(f) after

10:16:38 4 step (e), registering local coordinate space pixel

10:16:43 5 positions." The Court specifically finds the steps do not

10:16:48 6 have to -- steps do not have to take place in that

10:16:51 7 specific order, and will note obviously the defendant

10:16:56 8 proposed that so they -- that they thought that was

10:16:59 9 correct. And so, your objection to my construction would

10:17:03 10 be sustained -- would be noted for the record.

10:17:06 11 The Court will go with plain and ordinary meaning

10:17:09 12 without an ordering of steps. Do you think I've

10:17:13 13 sufficiently preserved for you your concerns for the

10:17:17 14 record with regard to the claim construction?

10:17:19 15 MR. BELANGER: I believe so, your Honor. Thank

10:17:22 16 you.

10:17:22 17 THE COURT: Okay. Thank you.

10:17:23 18 Next claim term, the 707 patent has, quote,

10:17:30 19 mobile registration device for measuring and recording

10:17:34 20 global positions and orientations of said measuring and

10:17:39 21 imaging device. The plaintiff has proposed plain and

10:17:44 22 ordinary meaning. The defendants propose that the claim

10:17:47 23 term is subject to 35 United States Code, Section 112,

10:17:53 24 paragraph 6. The Court's preliminary construction is that

10:17:55 25 it is not subject to 112, paragraph 6, and that plain and

10:18:01 1 ordinary meaning should be what the Court imposes.

10:18:05 2 I'm assuming from the plaintiff that the  
10:18:08 3 plaintiff accepts what the Court has proposed; is that  
10:18:11 4 correct?

10:18:11 5 MR. BURGER: Yes, your Honor.

10:18:13 6 THE COURT: Okay. I'll hear from defendant.

10:18:16 7 MR. BELANGER: Your Honor, I think the issue here  
10:18:20 8 is similar in that we believe 112, 6 should apply to this  
10:18:27 9 claim term. The arguments are similar. I'm happy to --  
10:18:31 10 and Mr. Liu is prepared to present those arguments if it  
10:18:34 11 would be helpful to the Court, but I think it is the same  
10:18:37 12 issue where we believe this claim phrase is merely  
10:18:44 13 functional language with a term thrown at the beginning  
10:18:46 14 that doesn't have any recognized structure.

10:18:50 15 THE COURT: Let me say this. This is y'all's  
10:18:53 16 Markman hearing. If Mr. Liu has anything he'd like to  
10:18:57 17 add, in addition to what he argued earlier, he is  
10:18:59 18 absolutely welcome to do that, and I'll hear from  
10:19:02 19 plaintiff's counsel. If your argument is essentially  
10:19:08 20 pretty much what you argued earlier, I think I'm pretty  
10:19:11 21 familiar with the law on this, and I know why I made this  
10:19:18 22 preliminary construction. But I'm absolutely -- Mr. Liu's  
10:19:21 23 free to make any argument that he'd like to make. So just  
10:19:24 24 let me know.

10:19:27 25 MR. BELANGER: Yeah. I think I'll let Mr. Liu

10:19:29 1 just briefly address the issue, your Honor, so it could be  
10:19:31 2 on the record.

10:19:31 3 THE COURT: Sure. Please do.

10:19:33 4 MR. LIU: Yeah. And I appreciate the  
10:19:36 5 opportunity.

10:19:36 6 I won't belabor the point, but I think the  
10:19:40 7 argument is similar. I think it's actually here, the term  
10:19:43 8 is, you know, one step even more removed than the  
10:19:47 9 measuring and imaging device. Mobile registration device  
10:19:51 10 is not a term of art. There's no evidence that it's --  
10:19:56 11 there's no evidence, either in the form of a dictionary  
10:20:00 12 definition or a treatise, to suggest that it connotes some  
10:20:02 13 type of well-understood structure. Again, it's a verbal  
10:20:10 14 construct that with the term "device," which is a nonce  
10:20:14 15 term, appended to the end of it.

10:20:16 16 And if you look at the structure of the claim --  
10:20:18 17 and, Jim, can you pull up slide 67? Oh, sorry, 62. I  
10:20:31 18 apologize. The language of the claim after mobile  
10:20:40 19 registration device is purely functional language. It  
10:20:44 20 recites the function of measuring and recording global  
10:20:47 21 positions and orientations of the measuring and imaging  
10:20:50 22 device. It doesn't provide any -- it doesn't purport to  
10:20:52 23 provide any structure or providing that measurement or  
10:20:56 24 recording of the global positions of the measuring device.  
10:20:59 25 It just recites a pure function. And we submit, your

10:21:04 1 Honor, that's, again, pure means-plus-function claiming.

10:21:09 2 And going to the next slide, slide 64. Sorry,

10:21:20 3 the next slide, 64. And again, the specification confirms

10:21:24 4 this. Again, the way that the specification describes the

10:21:30 5 mobile registration device, it merely provides a laundry

10:21:33 6 list of broad and vague mechanisms that could be used to

10:21:38 7 perform the function of measuring and recording the global

10:21:43 8 positions of the measuring and imaging device.

10:21:45 9 Again, it gives the example of electrical and

10:21:51 10 electromechanical mechanisms, and we submit, your Honor,

10:21:54 11 that those descriptions are extremely vague and don't

10:21:59 12 really provide any guidance as to what the corresponding

10:22:02 13 structure would be to perform the function of measuring

10:22:07 14 and recording the global positions of the measuring and

10:22:10 15 imaging device.

10:22:14 16 And with respect to that, I think that's -- as

10:22:21 17 you can see, it's very similar to the mobile registration

10:22:27 18 -- sorry, the measuring and imaging device term. And I'll

10:22:29 19 pass to plaintiff's counsel to see if he has any comments.

10:22:34 20 Or if you have any questions, your Honor, I'd be glad to

10:22:37 21 address them.

10:22:38 22 THE COURT: Sounds great.

10:22:40 23 Does plaintiff's counsel have anything they'd

10:22:42 24 like to put on the record?

10:22:43 25 MR. BURGER: Your Honor, it seems from what I'm

10:22:47 1 hearing that you're very familiar with the briefs. Unless  
10:22:54 2 you have a question about what defense --

10:22:57 3 THE COURT: I don't. No. I don't.

10:22:58 4 I just want to give you -- I gave Mr. Liu an  
10:23:01 5 opportunity to put whatever he wants on the record as to  
10:23:03 6 why I'm wrong. And if you have anything you'd like to put  
10:23:09 7 on the record to address what he said specifically, you're  
10:23:12 8 free to. If not, I'm happy to rule and move on to the  
10:23:14 9 next term.

10:23:15 10 MR. BURGER: I obviously don't agree with what  
10:23:18 11 Mr. Liu said, but I think that the reasons why I disagree  
10:23:21 12 are plain from our briefs. So I will rest on what is  
10:23:27 13 contained in our briefs.

10:23:28 14 THE COURT: Very good. That's fine.

10:23:30 15 The Court is going to find that that claim term  
10:23:32 16 is not subject to Section 112, paragraph 6, and give it  
10:23:37 17 the claim construction of plain and ordinary meaning.

10:23:40 18 The next claim term that we have up is from the  
10:23:44 19 768 patent, which is the claim term "sector." The  
10:23:49 20 plaintiff has proposed plain and ordinary meaning. The  
10:23:52 21 Court has adopted plain and ordinary meaning for the word  
10:23:57 22 "sector."

10:23:58 23 The defendant has proposed "region defined by two  
10:24:04 24 radii at" -- I hope I said that correctly. Josh, did I  
10:24:08 25 get close? "Radii at a given angle to each other." And

10:24:13 1 so, I'll hear -- I'm going to guess this is from Mr. Liu.

10:24:19 2 But I could be wrong.

10:24:21 3 MR. PATNAIK: Actually, you are wrong, your

10:24:23 4 Honor. It's Mr. Patnaik.

10:24:26 5 THE COURT: I'm equally happy to hear from you.

10:24:30 6 So I invite you to say whatever you'd like in support of

10:24:34 7 your proposed construction.

10:24:36 8 MR. PATNAIK: Thank you, your Honor.

10:24:37 9 Real quick, I just -- I am looking at plain and  
10:24:41 10 ordinary. We actually tried to expound on the plain and  
10:24:46 11 ordinary, or actually put forth we used extrinsic evidence  
10:24:47 12 like dictionary definitions and our expert. Plaintiff in  
10:24:51 13 advocating plain and ordinary, it's curious to us because  
10:24:54 14 we don't think that's actually advocating plain and  
10:24:58 15 ordinary. If you look at their briefing, your Honor, and  
10:25:01 16 I'll be specific. In their reply submission -- in their  
10:25:05 17 responsive claim construction brief, they criticize 3Shape  
10:25:05 18 for using the geometric definition of sector.

10:25:08 19 So I would argue, your Honor, today, that if you  
10:25:12 20 look at what they're actually saying, they're not saying  
10:25:15 21 plain and ordinary. They're saying plain and ordinary  
10:25:16 22 when you have to carve out geometric. They're  
10:25:19 23 acknowledging that the geometric definition of sector is  
10:25:22 24 what we have propounded.

10:25:23 25 So we would like some clarity because we don't

10:25:27 1 think what plaintiff actually said in their briefs or  
10:25:29 2 their expert declaration is plain and ordinary. And  
10:25:32 3 again, I'll be specific with their declaration. Dr. Bajaj  
10:25:39 4 at paragraph 48 of his expert declaration says very  
10:25:43 5 plainly, establishes that the word "sector" is not being  
10:25:47 6 used in the geometric sense.

10:25:49 7 So there's no, as far as we can see in the  
10:25:52 8 specification or the patent, otherwise, any disavowal of  
10:25:55 9 this geometric sense. In fact, the patent is sprinkled  
10:25:59 10 with references to the geometric context that this full  
10:26:04 11 patent is being read within. So it was curious to us that  
10:26:08 12 they're saying plain and ordinary, but not geometric, but  
10:26:12 13 at the same token, it leaves a dispute outstanding, your  
10:26:16 14 Honor. And I'll leave it at that.

10:26:19 15 THE COURT: That's a good argument. Give me one  
10:26:21 16 second, I'll be right back. I appreciate the issue -- let  
10:31:53 17 me go back on the record.

10:31:54 18 I appreciate the issue that defense counsel has  
10:31:56 19 raised and we believe -- I believe that a word like  
10:32:02 20 "sector," absent some compelling reason -- and I don't  
10:32:07 21 think defendant is even arguing there is a compelling  
10:32:09 22 reason here to give it a construction -- should be given a  
10:32:13 23 construction beyond plain and ordinary meaning.

10:32:16 24 That being said, I certainly understand the  
10:32:21 25 defendants' concern with the wording that was used in the

10:32:28 1 plaintiff's brief. And I understand the plaintiff's  
10:32:31 2 concern with the proposed construction in defendants'  
10:32:35 3 brief, given that this is a three-dimensional -- a patent  
10:32:39 4 that involves three dimensions.

10:32:41 5 So the Court, when we enter our claim  
10:32:45 6 construction order, we will -- we'll make clear -- we will  
10:32:52 7 amplify what is meant by plain and ordinary meaning to  
10:32:55 8 help you all when you're preparing with your experts. But  
10:32:58 9 the Court is going to maintain a claim construction of  
10:33:02 10 plain and ordinary meaning. And I appreciate defense  
10:33:04 11 counsel bringing to the Court's attention what the concern  
10:33:08 12 was with that claim term. And the Court will do its best  
10:33:12 13 to address that in the order based on what was said in the  
10:33:15 14 briefs.

10:33:15 15 With regard to the next claim term in the 768.

10:33:21 16 MR. PATNAIK: Your Honor, before we go on, could  
10:33:23 17 I just make one clarification point?

10:33:23 18 THE COURT: Sure.

10:33:25 19 MR. PATNAIK: You brought up the idea of the  
10:33:26 20 distinction because it's 3-D, and that was curious to me  
10:33:32 21 because going through the plaintiff's briefs, we thought  
10:33:34 22 it was very conclusory for their expert to say there's  
10:33:37 23 some distinction between a sector in 2-D versus 3-D. We  
10:33:42 24 didn't see any real support for it; it was just kind of  
10:33:45 25 said. And the easy example that comes to mind is a

10:33:47 1 sphere. That's 3-D and a sphere will have a sector, as  
10:33:50 2 well.

10:33:50 3 So, you know, I know that distinction was made,  
10:33:53 4 but we didn't really understand the point that was being  
10:33:55 5 made. And I just want to make sure that -- that doesn't  
10:33:59 6 go unaddressed because it wasn't something that was really  
10:34:02 7 honed in on.

10:34:05 8 THE COURT: Well, let me make clear. The Court  
10:34:08 9 rarely, very rarely -- and won't probably in this  
10:34:13 10 instance -- relies on extrinsic evidence. And so, I  
10:34:17 11 understand your concern. I'm pretty well on the record  
10:34:23 12 that, you know, I do my best to look at the intrinsic  
10:34:27 13 evidence and the specification. And that's why I'm saying  
10:34:30 14 with regard to a word like "sector," that here, my  
10:34:38 15 philosophy is -- generally speaking is this.

10:34:40 16 That when someone is -- when an attorney is doing  
10:34:45 17 their best -- when they are prosecuting the patent and  
10:34:48 18 they're doing best to capture the intention of the  
10:34:52 19 inventor, they -- and they're drafting it, I think there  
10:34:57 20 are words and selections of words and phrases that they  
10:35:01 21 use where they would understand and anticipate that if the  
10:35:07 22 patent is granted, that there might be a challenge and  
10:35:10 23 that they need to define those claim -- that those words  
10:35:13 24 need to be construed. They could do that in the  
10:35:17 25 specification, you know, all that stuff.

10:35:19 1           But on the other hand, when a person is drafting  
10:35:23 2 a patent, trying to capture an invention and they use a  
10:35:27 3 word like "sector" that, in my opinion, they anticipate  
10:35:34 4 everyone skilled in the art, generally speaking, to know  
10:35:39 5 unless they have to disavow something during the  
10:35:40 6 prosecution or, in this case, if the patent involved a new  
10:35:45 7 way of creating sectors and they had to explain what the  
10:35:48 8 word "sector" meant, I'm very reluctant to go down the  
10:35:54 9 road of construing a word like "sector," you know, or a  
10:36:01 10 word like "pole," which I've been asked to do, you know,  
10:36:06 11 or "pipe." You know, I don't do that.

10:36:11 12           On the other hand, I understand your concern that  
10:36:16 13 you have a concern based on the briefing that was done by  
10:36:20 14 the plaintiff. I don't want you all, if I can avoid it,  
10:36:24 15 to get to the point where your experts are coming up with  
10:36:31 16 and opining in their reports and at depositions on whether  
10:36:35 17 or not there's infringement or whether or not there's  
10:36:37 18 invalidity because of some confusion over what the word  
10:36:44 19 "sector" means.

10:36:44 20           We are going to do our best when we draft the  
10:36:47 21 order to make it as clear as possible what we think the  
10:36:50 22 plain and ordinary meaning of "sector" is. Failing that,  
10:36:56 23 then I anticipate I might receive Daubert motions or  
10:37:00 24 motions for summary judgment down the road if one of you  
10:37:04 25 -- if one of you believes the other side's experts has

10:37:07 1 taken a position on what the word "sector" means in the  
10:37:10 2 context of this patent that is not -- that should not fall  
10:37:14 3 within the plain and ordinary meaning.

10:37:16 4 So let me move on to the next claim term, which  
10:37:19 5 is "identifiable positional characteristic." The  
10:37:24 6 plaintiff's construction is plain and ordinary meaning.  
10:37:26 7 The defendants' construction is that it is indefinite  
10:37:28 8 under 35 United States Code, Section 112, 6 -- paragraph  
10:37:36 9 6. The Court's proposed construction is, it is not  
10:37:39 10 subject to Section 112, paragraph 6. And I'll say this in  
10:37:45 11 part for the benefit of the defendants and they have  
10:37:49 12 clients on board.

10:37:52 13 I think we have only once found in this situation  
10:37:57 14 when a defendant made the proposal that something was  
10:37:59 15 subject to Section 112, paragraph 6, that it, indeed, was.  
10:38:08 16 So it is probable -- I'm probably in the 98 percent  
10:38:11 17 category of rejecting these arguments, and so, it's  
10:38:16 18 consistent with my general philosophy of patent law.

10:38:19 19 The Court's construction here is that claim term  
10:38:23 20 "identifiable positional characteristic" of plain and  
10:38:27 21 ordinary meaning is "a characteristic of the reference  
10:38:31 22 surface device that facilitates the conversion of 2-D  
10:38:34 23 images to 3-D models." I'll hear first from the plaintiff  
10:38:38 24 as to whether or not you are satisfied with the Court's  
10:38:44 25 interpretation of what the plain and ordinary meaning is.

10:38:49 1 MR. BURGER: Thank you, your Honor.

10:38:50 2 This is the term where we proposed a slight

10:38:57 3 modification. I have some slides for what our proposal is

10:39:02 4 for what the plain and ordinary meaning of the term means

10:39:07 5 and slides relating to the spec support. Here we are.

10:39:25 6 And can you guys see my screen at this point? All right.

10:39:34 7 I'll take the silence as a yes.

10:39:36 8 So, your Honor, we do agree with the first

10:39:44 9 portion.

10:39:44 10 THE COURT: Give me one second because I'm

10:39:48 11 looking right now at your proposal, and I may take it and

10:39:55 12 modify your proposal a little bit. So let me work on that

10:40:00 13 for just a second here and come back to you all with

10:40:03 14 perhaps a modification of what the Court's preliminary

10:40:06 15 construction was, based off of what the plaintiff

10:40:11 16 suggested. Give me just one second.

10:40:14 17 MR. BURGER: Thank you, your Honor.

10:41:37 18 THE COURT: Allow me to go back on the record.

10:41:39 19 I am going to take what the plaintiff has

10:41:43 20 suggested. I am going to change the word "stitching"

10:41:48 21 because I don't think that necessarily helps the jury

10:41:51 22 because I might have to explain to them what stitching

10:41:54 23 means, but I'm going to use it as the foundation. And the

10:42:01 24 Court is now going to offer and so the defendant knows

10:42:05 25 what it's arguing against, and I'll see if the plaintiff

10:42:09 1 is okay with this. Plaintiff will get to go first and  
10:42:12 2 tell me if I've gotten it wrong.

10:42:15 3 A characteristic of the reference surface device  
10:42:19 4 that facilitates conversion of a 2-D image to 3-D models  
10:42:24 5 or combining -- and I'm using the word "combining" rather  
10:42:28 6 than the proposed word "stitching" -- "a first  
10:42:32 7 three-dimensional model to a second three-dimensional  
10:42:35 8 model."

10:42:35 9 So let me hear from the plaintiff first and ask  
10:42:39 10 if you are satisfied with that proposed claim  
10:42:42 11 construction.

10:42:45 12 MR. BURGER: Yes, your Honor. The substitution  
10:42:47 13 of the word "combining" for the proposed word "stitching"  
10:42:51 14 is acceptable to the plaintiff.

10:42:53 15 THE COURT: Okay. So let me turn, then, to  
10:42:56 16 defense counsel and hear any arguments you have why the  
10:43:01 17 Court's proposed construction, which is the one I just  
10:43:06 18 gave with regard to "combining" in it, is incorrect.

10:43:11 19 MR. LIU: Yes, your Honor. This is Frank Liu on  
10:43:14 20 behalf of the defendants.

10:43:15 21 So the language that was proposed -- and at the  
10:43:22 22 outset, we'd just note that our original proposed  
10:43:25 23 construction was not 112, paragraph 6. It was actually  
10:43:28 24 intended just to be an indefiniteness under 112, paragraph  
10:43:32 25 2. So we apologize if there's any confusion around that.

10:43:37 1                   And after receiving the Court's preliminary  
10:43:41 2 construction, we took a look at it, and we thought that  
10:43:46 3 the Court's preliminary construction was helpful in  
10:43:53 4 providing what the understanding of the plain and ordinary  
10:43:55 5 meaning. However, we believe that the addition that's  
10:43:58 6 been just proposed would improperly attempt to import a  
10:44:07 7 preferred embodiment into the claims.

10:44:10 8                   And so, just to be clear, defendant would be fine  
10:44:16 9 with the language -- or with the construction, "a  
10:44:20 10 characteristic of the" --

10:44:22 11                   THE COURT: Mr. Liu, let me ask you something.  
10:44:24 12 You've touched on something that I always gotta be careful  
10:44:31 13 how I say it. You look so young to me that I was going to  
10:44:35 14 say something like I've been practicing law longer, but I  
10:44:38 15 won't. But I probably have been practicing law longer  
10:44:42 16 than any of you have been alive. But I never --

10:45:01 17                   MR. PATNAIK: Your Honor, we've lost audio for  
10:45:04 18 you.

10:45:06 19                   THE COURT: Oh, can you hear me now?

10:45:11 20                   MR. PATNAIK: It's muffled. It's muffled and  
10:45:14 21 distorted.

10:45:16 22                   THE COURT: Okay. Let me do this then. I'm  
10:45:25 23 going to log out and log back in.

10:45:28 24                   MR. BURGER: Your Honor, it appears to have  
10:45:29 25 resolved.

10:45:30 1                   THE COURT: Very good.

10:45:33 2                   So what I was saying is, I don't know that it's

10:45:37 3 not a good argument or a legitimate argument. I've just

10:45:42 4 never -- Mr. Liu, I've never heard a defendant concerned

10:45:44 5 that a plaintiff was importing a limitation from the

10:45:50 6 specification into a claim construction because typically,

10:45:57 7 you know, that's a narrowing of what -- the argument

10:46:01 8 against doing that philosophically is if the claim is

10:46:05 9 broad and a defendant -- the claim is usually -- the

10:46:08 10 argument's usually going the other way. The plaintiff is

10:46:11 11 saying, Judge, you can't use that construction because

10:46:13 12 it's a limitation. My claim is actually broader and they

10:46:17 13 want to limit it. Why would a defendant care if the

10:46:21 14 plaintiff -- I'm not saying it's right or wrong, but why

10:46:25 15 can't a plaintiff do that? I guess I've just never heard

10:46:29 16 anyone make that argument before.

10:46:32 17                   MR. LIU: And let me see if I can explain.

10:46:33 18                   THE COURT: Okay.

10:46:34 19                   MR. LIU: So the language that Densys' counsel

10:46:39 20 proposed, the portion of the specification that they cite

10:46:44 21 to, which is column 6, lines 58 through column 7, line 11,

10:46:53 22 that's where the limitations of the first

10:46:56 23 three-dimensional model to a second three-dimensional

10:46:59 24 model come from.

10:46:59 25                   And in that part of the specification -- and,

10:47:06 1 Jim, can I actually get that pulled up onto the screen?

10:47:33 2 Sorry. Can we get the 768 patent? So, Jim, can you blow

10:47:58 3 up column 6, lines 58 through 7, 11?

10:48:23 4 MR. BURGER: Frank, I have the slide where you

10:48:25 5 can see the entire portion that we're relying on, if you'd

10:48:29 6 like it, I can just throw that up. It might be easier for

10:48:34 7 everyone to see.

10:48:37 8 MR. LIU: That's fine. Jim, if you already have

10:48:42 9 -- it seems like your --

10:48:44 10 MR. BURGER: Here. I just think this might be

10:48:51 11 simpler since you're referring to what we submitted.

10:49:00 12 MR. LIU: Thank you, Oded. I appreciate that.

10:49:05 13 Yeah. And so, this is the relevant portion of

10:49:09 14 the specification that plaintiff's counsel cited to for

10:49:13 15 support for the limitation, which makes reference to the

10:49:19 16 first three-dimensional model to a second

10:49:22 17 three-dimensional model. If you can see the first line of

10:49:26 18 that portion, it begins with furthermore, according to

10:49:30 19 some embodiments of the present invention, there is

10:49:32 20 provided a method for producing a three-dimensional model

10:49:35 21 of an intra-oral scene. And then, it goes on to list the

10:49:40 22 various steps of this method.

10:49:42 23 And as you can see in steps -- step (e), it

10:49:50 24 recites the first two-dimensional image of the

10:49:54 25 three-dimensional -- of the intra-oral scene, including a

10:49:56 1 first reference surface and at least one identifiable  
10:50:00 2 positional characteristic.

10:50:03 3 Step (f) is where it recites obtaining a first  
10:50:06 4 three-dimensional model from a two-dimensional image. And  
10:50:11 5 step (h) recites obtaining a second three-dimensional  
10:50:14 6 model from the --

10:50:16 7 THE COURT: Mr. Liu, can I ask you a question?

10:50:19 8 Since I'm -- since I am saying what plain and ordinary  
10:50:26 9 meaning means and I'm looking at what you're saying here,  
10:50:31 10 how would -- and I'm using the word "combining" instead of  
10:50:36 11 "stitching," but how would combining, which is in the  
10:50:41 12 specification, combining the first three-dimensional model  
10:50:46 13 to the second three-dimensional model not be part of the  
10:50:49 14 plain and ordinary meaning if it's disclosed in the  
10:50:53 15 specification?

10:50:54 16 I mean, I guess we could quibble on whether or  
10:50:59 17 not I ought to include that language in my claim  
10:51:03 18 construction and that might even go to whether or not it  
10:51:06 19 helps a jury or doesn't help a jury. But even if I left  
10:51:09 20 that language out of my explanation of what a plain and  
10:51:15 21 ordinary meaning is for the 768 patent, how would that  
10:51:19 22 possibly not be part of the plain and ordinary meaning of  
10:51:25 23 what's covered here by identifiable positional  
10:51:30 24 characteristic when it's discretely disclosed?

10:51:35 25 MR. LIU: Well, your Honor, I think that the

10:51:40 1 Court's original construction of a characteristic of the  
10:51:44 2 reference surface device that facilitates conversion of  
10:51:47 3 2-D images to 3-D models, we think that's a clear and  
10:51:51 4 concise definition for the identifiable positional  
10:51:55 5 characteristic. We think by injecting the additional  
10:51:59 6 language "or combining a first three-dimensional model to  
10:52:03 7 a second three-dimensional model," that injects some  
10:52:07 8 ambiguity into the claim language because now it takes  
10:52:11 9 away that original requirement of the reference surface  
10:52:19 10 device facilitating the conversion of 2-D images to 3-D  
10:52:23 11 models.

10:52:24 12 THE COURT: Mr. Liu, let me try this. Let me go  
10:52:26 13 back to the plaintiff for a second. Plaintiff's counsel.

10:52:31 14 MR. LIU: Yes, your Honor.

10:52:32 15 THE COURT: I am, frankly, agnostic probably  
10:52:37 16 whether I include the language that you have proposed in  
10:52:44 17 that the Markman is to do two things. One is to make  
10:52:48 18 certain you all know what is -- what I think the claim  
10:52:52 19 term means, and the other's possibly to benefit the jury  
10:52:57 20 in explaining what they otherwise might not understand.

10:53:01 21 I can tell you on the record right now -- and  
10:53:07 22 we'll have a transcript of this so you can remind me of  
10:53:09 23 this when we get to trial and I may have forgotten it.  
10:53:13 24 But as far as I'm concerned, stitching or combining the  
10:53:18 25 first three-dimensional model to the second

10:53:21 1 three-dimensional model as is in the specification is part  
10:53:26 2 of the plain and ordinary meaning of identifiable  
10:53:29 3 positional characteristic.

10:53:31 4 If you don't care -- if me having said that, do  
10:53:36 5 you care whether or not I include it in the construction I  
10:53:40 6 have, which is going to go to the jury?

10:53:44 7 MR. BURGER: Yes --

10:53:45 8 THE COURT: Because I am --

10:53:45 9 MR. BURGER: I apologize.

10:53:47 10 THE COURT: No. Please.

10:53:47 11 MR. BURGER: No. I actually believe that it's  
10:53:49 12 important and I have a slide to explain why.

10:53:51 13 THE COURT: Okay.

10:53:52 14 MR. BURGER: Previous slide and that's -- this is  
10:53:55 15 the portion of the specification that speaks to the way  
10:54:02 16 that the identifiable positional characteristic relates to  
10:54:07 17 driving 3-D information from 2-D images. But it's  
10:54:14 18 important that the spec uses the word "typically" there.  
10:54:18 19 It is sometimes the case, but it is not always the case.  
10:54:22 20 And the instances when it is the case relate to structured  
10:54:29 21 illumination, which is a way of getting 3-D information  
10:54:33 22 from 2-D images.

10:54:34 23 But the spec is very clear that this invention  
10:54:40 24 does not only relate to instances when this reference  
10:54:47 25 surface device is being used with the structured

10:54:52 1 illumination. And the cite, for your Honor's benefit, for  
10:54:58 2 how structured illumination is not the only way in order  
10:55:02 3 to get 3-D information in the context of this invention is  
10:55:09 4 -- the cite I'd like to give you is column 1, lines 39  
10:55:13 5 through 56. There are other cites, as well, that I don't  
10:55:19 6 have at my fingertips, but that cite is very clear that  
10:55:26 7 structured illumination is not required. I believe, in  
10:55:30 8 fact, that some of the defendants' briefing even agrees  
10:55:34 9 with that point.

10:55:35 10 And so, that's why this word "typically" that  
10:55:37 11 we're looking at the portion of the specification at  
10:55:43 12 column 10, lines 23 through 36, the fact that it uses the  
10:55:48 13 word "typically," I think that, again, the identifiable  
10:55:55 14 positional characteristic can be used for this purpose,  
10:55:59 15 but this is not the only purpose for which the  
10:56:03 16 identifiable positional characteristic is disclosed. And  
10:56:07 17 that is why I believe the Court's explanation as to what  
10:56:12 18 the plain and ordinary meaning should include the other  
10:56:18 19 sense, which is disclosed at column 6, line 58 through  
10:56:24 20 column 7, line 11.

10:56:29 21 MR. DAIGNAULT: Yes, your Honor. This is Ron  
10:56:32 22 Daignault speaking.

10:56:33 23 Further to counsel's point, one of the things  
10:56:36 24 that we believe is that as the Court construed plain and  
10:56:40 25 ordinary meaning, or illuminated what plain and ordinary

10:56:44 1 meaning is, we would just respectfully submit that it  
10:56:47 2 actually is limiting to the 2-D, 3-D concept, and that it  
10:56:50 3 would be excluding the combining or stitching that's  
10:56:53 4 talked about in the spec.

10:56:54 5 So that's -- so in addition to what Mr. Burger  
10:57:00 6 mentioned and the fact that it talks about typically, our  
10:57:05 7 issue really was that on its face, it just seemed that the  
10:57:08 8 Court was limiting the construction. We understand from  
10:57:10 9 the Court's comments that you would be including the  
10:57:13 10 combining, stitching as part of plain and ordinary  
10:57:16 11 meaning.

10:57:17 12 So if the jury, though, only sees the portion  
10:57:20 13 about 2-D, 3-D, then they may not appreciate that you have  
10:57:24 14 this combining aspect, too, which is actually embodiment  
10:57:27 15 in the patent and would be excluded arguably from the  
10:57:32 16 construction.

10:57:37 17 THE COURT: Okay. If I could hear from  
10:57:40 18 whoever -- I apologize. I forgot who it was that was  
10:57:42 19 arguing on behalf of defendant. Mr. Liu, I think.

10:57:46 20 MR. LIU: Yes, your Honor.

10:57:47 21 And if I may comment on that point. And I think  
10:57:52 22 one point I wanted to make clear was that the modified  
10:58:00 23 construction uses the term "or." So in other words,  
10:58:08 24 they're effectively not going to require the identifiable  
10:58:13 25 positional characteristic to require a characteristic of

10:58:19 1 the reference surface device that facilitates conversion  
10:58:22 2 of 2-D images to 3 models. We believe that the  
10:58:25 3 specification, particularly the portion that plaintiff's  
10:58:32 4 counsel put up on 10, lines 23 through 36, provides that  
10:58:38 5 requirement for the conversion of the 2-D image just to  
10:58:42 6 the 3 models.

10:58:43 7 That being said, we don't believe that once you  
10:58:54 8 -- with that being said, we're not trying to read out the  
10:58:56 9 -- we're not trying to preclude them from subsequently  
10:59:00 10 relying upon combining first three-dimensional model to a  
10:59:04 11 second three-dimensional model.

10:59:07 12 So just at a high level, the way that this works  
10:59:09 13 is that you have your structured illumination, you create  
10:59:14 14 these two-dimensional images and you generate a  
10:59:18 15 three-dimensional model. That three-dimensional model is  
10:59:20 16 only a small portion of the object. And in order to  
10:59:25 17 capture the full three-dimensional model, you need to  
10:59:30 18 capture multiple of these. So you would have multiple 2-D  
10:59:32 19 images that you convert to 3 models, and then, you can  
10:59:35 20 subsequently stitch them together to create entire  
10:59:39 21 three-dimensional model.

10:59:39 22 So I guess more simply put, I think we would be  
10:59:47 23 okay with the modification if instead of using the term  
10:59:50 24 "or," you use the word "and" combining the first  
10:59:53 25 three-dimensional model to a second three-dimensional

10:59:55 1 model.

11:00:03 2 THE COURT: Okay. The Court is going to go with  
11:00:06 3 the proposal that I read that included the word "capable."  
11:00:11 4 And I don't think the change of the word from "and" --  
11:00:14 5 from "or" -- I'm sorry, combined and I don't think Mr.  
11:00:18 6 Liu's correct when he says it should be "and" rather than  
11:00:21 7 "or." I think "or" is appropriate.

11:00:24 8 So let's move to the next claim term, the 768  
11:00:29 9 patent. Claim term is "a plurality of faces" and "each  
11:00:34 10 face of said plurality of faces at an angular orientation  
11:00:37 11 with respect to each adjacent face." The Court's proposed  
11:00:43 12 construction is plain and ordinary meaning. Defendants'  
11:00:47 13 obviously is much more robust. I'll hear from whoever is  
11:00:51 14 going to speak on behalf of defendants with respect to  
11:00:54 15 their construction -- or their proposed construction.

11:00:58 16 MR. PATNAIK: Your Honor, this is Mr. Patnaik  
11:01:00 17 again on this one.

11:01:00 18 So on this one, I'm mindful of your earlier words  
11:01:04 19 about how you generally construe terms. We do have a very  
11:01:08 20 strong indication in the specification here of the  
11:01:11 21 patentee actually acting as his own lexicographer and  
11:01:15 22 putting forth certain properties with respect to the  
11:01:17 23 claims that are used in the claim -- or the terms that are  
11:01:20 24 used in the claim, and I'll specify claim 10.

11:01:22 25 So the dispute at its crux is that defendants are

11:01:26 1 putting or 3Shape is putting in this "substantially plane"  
11:01:31 2 language, and I think that's where the dispute is. I'll  
11:01:33 3 let plaintiff speak for themselves, but from our  
11:01:36 4 understanding of the briefing, that's the crux of the  
11:01:38 5 dispute.

11:01:38 6               When -- and our use of "substantially plane"  
11:01:41 7 comes actually from the guidance in the specification when  
11:01:44 8 it's talking about the properties of the referenced  
11:01:48 9 surface device, and it uses the face that's the subject of  
11:01:51 10 these -- of this claim term. And so, I'm looking at  
11:01:55 11 column 10, your Honor, lines 44 through 57. And this is  
11:01:59 12 where the patentee discusses substantially plane, and they  
11:02:03 13 end the paragraph, it's not simply about an embodiment,  
11:02:06 14 which I understand is the beginning of the paragraph, but  
11:02:09 15 the end of that paragraph states very clearly the term,  
11:02:12 16 quote, reference surface device, end quote, herein denotes  
11:02:17 17 a device where apparatus having at least these properties.

11:02:19 18               So these properties are, in fact, read into the  
11:02:24 19 overarching. I mean, claim 1 is all about this reference  
11:02:27 20 surface device. So what we were trying to do with the  
11:02:29 21 language in our construction was ensure that that property  
11:02:33 22 that's the subject of this paragraph was actually captured  
11:02:36 23 in the construction.

11:02:45 24               Your Honor, I mean, that's the crux of my  
11:02:47 25 argument. I think the additional points I would make, in

11:02:51 1 plaintiff's briefing, they quibbled with our use -- they  
11:02:54 2 pointed to the pyramid examples as how our construction  
11:02:57 3 couldn't be possibly correct. The pyramid example,  
11:03:02 4 actually, your Honor, is exactly what we're saying because  
11:03:04 5 each of the faces of the pyramid are substantially planar.

11:03:06 6 And you could see that if you look at figure 6A.

11:03:11 7 It points to 605. 605 is described in column 15 as a  
11:03:16 8 face, and all we're saying is, even in the pyramid  
11:03:19 9 structure that those individual faces, they comport with  
11:03:22 10 the requirements of the claim, but they are still  
11:03:25 11 substantially planar.

11:03:26 12 The other point that plaintiffs use to argue  
11:03:32 13 against our construction is the dependent claim 16, which  
11:03:36 14 talks about the length being an arch. Again, we think  
11:03:39 15 that's completely consistent and not mutually exclusive at  
11:03:42 16 all with our substantially plane construction insertion  
11:03:46 17 because if you look, for instance, at figure 6A and 6B,  
11:03:50 18 those, we would argue, are -- the length is in the shape  
11:03:54 19 of an arch so -- and that's the pyramidal structure. So  
11:03:57 20 -- and that by definition, by the patent specification  
11:04:01 21 tells you that there are different angles for each of the  
11:04:04 22 pyramidal structures, and it comports with the rest of the  
11:04:07 23 claim requirements.

11:04:08 24 So I'll leave it at that, your Honor, unless you  
11:04:11 25 have any questions. But I did want to address the two

11:04:13 1 points raised by plaintiffs against our construction.

11:04:22 2 THE COURT: Yeah. I'll hear a response from the  
11:04:25 3 plaintiff. And I'm happy to hear with regard to the issue  
11:04:30 4 -- on the suggestion with regard to the pyramids.

11:04:38 5 MR. BURGER: Your Honor, if I could have control.

11:04:39 6 Yeah, okay. I do have slides that illustrate this point.

11:04:47 7 Just one moment.

11:05:01 8 The pyramidal depression is addressed not only in  
11:05:09 9 the specification but, also, in claim 2. And here, you  
11:05:12 10 see that where the word "face" appears in the next to the  
11:05:23 11 last line of this quote of claim 2. It says wherein each  
11:05:30 12 face of said plurality of faces includes a pyramidal  
11:05:37 13 depression. So the use of the word "face" there, a face  
11:05:41 14 that has a pyramidal depression is not a face that it's  
11:05:49 15 substantially plane. So even within the context of the  
11:05:51 16 claim, the use of the word "face" is inconsistent with  
11:05:57 17 having -- being substantially plane. It tells us that it  
11:06:03 18 includes a pyramidal depression.

11:06:04 19 So what this tells me is that the use of the word  
11:06:08 20 "face" in the context of the claims and the specification  
11:06:13 21 is broader than the substantially plane face. And indeed,  
11:06:19 22 where the claims require substantially plane face, they do  
11:06:26 23 include that; but in other contexts, they just mention  
11:06:31 24 faces.

11:06:35 25 And so, I think the use of the word "face" as it

11:06:42 1 appears very clearly in claim 2 is that it's a surface,  
11:06:49 2 and so, the surface has a pyramidal depression. And  
11:06:54 3 another -- I was thinking of another example that might  
11:06:58 4 help the Court. When one speaks about the face of a  
11:07:01 5 cliff, no one -- there's a face of a cliff is not  
11:07:08 6 substantially plane, but yet, we talk about it as a  
11:07:11 7 surface as a face.

11:07:12 8 And I believe that that is the sense in which the  
11:07:15 9 claims use the word "face." And I do have other points to  
11:07:23 10 make, but I believe your Honor wanted me to respond  
11:07:27 11 specifically to the pyramidal depression.

11:07:32 12 THE COURT: Okay. If y'all will give me just one  
11:07:34 13 second.

11:09:27 14 Okay. I'm back on the record. Thank you for  
11:09:29 15 your courtesies in letting me take a short break to chat  
11:09:31 16 about this with my law clerks.

11:09:34 17 The Court is going to maintain its construction  
11:09:38 18 of plain and ordinary meaning. And also, having heard the  
11:09:42 19 arguments that were made by defendants' counsel with  
11:09:45 20 respect to how the claims should be construed, the Court  
11:09:50 21 rejects those and finds that the effort that you are  
11:09:55 22 making regarding to including "each substantially plane  
11:10:00 23 surface at an angular orientation relative to an adjacent  
11:10:05 24 substantially plane surface" would not be -- that a person  
11:10:09 25 skilled in the art would not find that to be the plain and

11:10:13 1 ordinary meaning or the correct construction of that claim  
11:10:16 2 term.

11:10:17 3 The Court is going to make as its final and  
11:10:20 4 permanent construction that it be plain and ordinary  
11:10:27 5 meaning. Hold on one second. I want to put on the record  
11:10:41 6 that we believe the specification shows the ability to map  
11:10:46 7 curved surfaces. So to the extent that the defendants'  
11:10:49 8 proposal would indicate that the specification does not  
11:10:54 9 allow that or the claim does not include that, the Court  
11:10:57 10 rejects that proposed construction.

11:11:00 11 The final claim term we have is "orientation  
11:11:07 12 indicium" and "position indicium." The Court's claim  
11:11:11 13 construction proposal is plain and ordinary meaning.  
11:11:12 14 Defendants' proposed construction is that the claim term  
11:11:16 15 is either indefinite or is indefinite under 35 United  
11:11:23 16 States Code, Section 112, paragraph 2.

11:11:26 17 The Court's preliminary construction is the  
11:11:28 18 defendant is incorrect. It is not subject to Section 112,  
11:11:34 19 paragraph 2, and that plain and ordinary meaning is the  
11:11:36 20 appropriate construction for both "orientation indicium"  
11:11:41 21 and "position indicium." I'll hear from counsel for  
11:11:45 22 defendant, please.

11:11:51 23 MR. LIU: Yes, your Honor.

11:11:52 24 We've taken a look through the Court's proposed  
11:11:55 25 construction, and I think it helps give clarity as to what

11:11:59 1 the plain and ordinary meaning is for the orientation  
11:12:04 2 indicium and the location indicium. And I guess, one  
11:12:07 3 point that we wanted to seek clarification on is with  
11:12:11 4 respect to the language "allows a viewer to ascertain the  
11:12:18 5 orientation of the reference surface device."

11:12:21 6                   And so, in our understanding of the claimed  
11:12:26 7 invention, the purpose of the reference surface device is  
11:12:29 8 to use orientation indicium and position indicium to  
11:12:35 9 ultimately determine three-dimensional points. And the  
11:12:44 10 orientation indicium and the position indicium are going  
11:12:49 11 to be points or orientation in the two-dimensional images  
11:12:54 12 that are captured and that are subsequently process. So  
11:12:58 13 in terms of the characteristic, we believe that it's more  
11:13:03 14 consistent with the invention that's described in the 768  
11:13:09 15 patent to have that the reference surface device is using  
11:13:14 16 the orientation of the reference surface device with  
11:13:18 17 respect to the intra-oral cavity as opposed to merely  
11:13:23 18 allowing it to just be a viewer to ascertain the  
11:13:26 19 orientation of the reference surface device.

11:13:34 20                   THE COURT: Okay. Let me hear a response from  
11:13:36 21 the plaintiff.

11:13:37 22                   MR. BURGER: I have to apologize, your Honor.  
11:13:40 23 I'm not really clear what counsel is proposing. I can  
11:13:48 24 tell you why I believe the construction that your Honor  
11:13:54 25 has proposed is supported by the patent specification, but

11:14:01 1 I think I need --

11:14:01 2 THE COURT: Okay. I've got it. Let me -- that's  
11:14:04 3 my fault. So let me go ahead and do this.

11:14:07 4 Mr. Liu, so let me read to you for the record  
11:14:13 5 with respect to orientation indicium, I'm going to read  
11:14:17 6 what the Court's proposal is, and then, I'm going to have  
11:14:21 7 you tell me what language you would like to add or delete  
11:14:25 8 to clarify my proposal. And then, I'll hear from  
11:14:30 9 plaintiff's counsel.

11:14:30 10 So the plain and ordinary meaning -- and this  
11:14:33 11 will be true for both of them. Orientation indicium is a  
11:14:37 12 characteristic of the reference surface device that allows  
11:14:41 13 a viewer to ascertain the orientation of a reference  
11:14:45 14 surface device with respect to the inter-oral cavity.

11:14:50 15 You mentioned that you had an issue with the  
11:14:53 16 portion of it that begins with "allows" and ends with  
11:14:57 17 "surface device." Tell me how you would propose modifying  
11:15:02 18 the Court's preliminary construction so that I can hear  
11:15:04 19 from plaintiff's counsel.

11:15:08 20 MR. LIU: Sure. And I think the most -- simply  
11:15:11 21 that the dispute is really over whether it's -- the  
11:15:18 22 reference surface device is something that allows a viewer  
11:15:21 23 to ascertain the orientation or the position of the  
11:15:24 24 reference surface device or whether it's a system that's  
11:15:27 25 being used to ascertain the orientation or position of the

11:15:31 1 reference surface device.

11:15:33 2 We submit, your Honor, that consistent with the  
11:15:36 3 spec -- teachings of the 768 patent, the whole purpose of  
11:15:40 4 the reference surface device is to allow the computer  
11:15:43 5 system to ascertain what the orientation or position of  
11:15:49 6 the reference surface device is so that you can use that  
11:15:53 7 to determine three-dimensional points of the object that  
11:15:59 8 you're scanning.

11:16:00 9 And so, I think that's the clarification that we  
11:16:03 10 seek, and we believe that's consistent with the  
11:16:06 11 specification. And so, we would be fine if you just  
11:16:13 12 replaced the word "viewer" with "system."

11:16:17 13 THE COURT: So -- and as you're talking, I think  
11:16:22 14 I am persuaded that "allows a viewer" may be unnecessarily  
11:16:27 15 restrictive. And I understand why it may be a viewer  
11:16:32 16 that's looking at it, but it may be the system that is  
11:16:36 17 providing it. Let me put you on mute for just a second,  
11:16:46 18 and we'll see what we can do on our side. Give me one  
11:16:56 19 second.

11:17:42 20 Okay. So here is what I'm going to try modifying  
11:17:48 21 this to. I'll start with Mr. Liu and ask if this  
11:17:54 22 satisfies what you're trying to accomplish. For both of  
11:17:57 23 them in the section that says, allows a viewer to  
11:18:02 24 ascertain the orientation, I would modify that to read, a  
11:18:07 25 device that allows for the ascertainment of the

11:18:13 1 orientation. And that will be for both claim terms.

11:18:27 2 MR. LIU: I believe we would be fine with that  
11:18:28 3 clarification, with the additional clarification that it's  
11:18:35 4 not intended to allow just any viewer to look at the  
11:18:39 5 reference surface device and, in their head, be able to  
11:18:43 6 ascertain the orientation or the position, but rather,  
11:18:49 7 it's the system that's viewing it and making that  
11:18:55 8 determination.

11:18:58 9 THE COURT: Let me -- I'm going to hold off on  
11:19:01 10 the addition that you'd like. But let me hear from  
11:19:03 11 plaintiff's counsel with respect to my modification of my  
11:19:07 12 preliminary construction.

11:19:09 13 MR. BURGER: Your Honor, I believe that we are in  
11:19:13 14 agreement with your modified construction.

11:19:18 15 THE COURT: And I'm going to go out on a limb  
11:19:21 16 here and guess that you'd prefer for me not to add the  
11:19:25 17 language that Mr. Liu suggested that I add.

11:19:27 18 MR. BURGER: I actually don't understand, again,  
11:19:30 19 what Mr. Liu has proposed, specifically. But in terms of  
11:19:38 20 what you laid out, I am in agreement.

11:19:44 21 THE COURT: Okay. If you all will give me just a  
11:19:46 22 second. Okay. Thank you very much for the break.

11:22:53 23 The Court is going to go with the modified  
11:22:56 24 proposal it came up with this morning for orientation  
11:23:03 25 indicium. The construction's going to be plain and

11:23:06 1 ordinary meaning as a characteristic of the reference  
11:23:09 2 surface device that allows for the ascertainment of the  
11:23:15 3 orientation of a reference surface device with respect to  
11:23:19 4 the inter-oral cavity.

11:23:20 5 With respect to position indicium, the Court is  
11:23:24 6 going to go with a characteristic of the reference surface  
11:23:28 7 device that allows for the ascertainment of the  
11:23:33 8 orientation -- allows the ascertainment of the position of  
11:23:39 9 the reference surface device within the inter-oral cavity.

11:23:43 10 So that is --

11:23:47 11 MR. BURGER: Your Honor.

11:23:48 12 THE COURT: And there's -- my clerk said we might  
11:23:52 13 want to have intra-oral, rather than inter, if that is --  
11:23:57 14 so I'm going to say intra-oral cavity.

11:24:01 15 MR. BURGER: That is precisely what I was going  
11:24:03 16 to say.

11:24:04 17 THE COURT: Very good. Okay.

11:24:06 18 So that ends the Markman hearing, which allows us  
11:24:11 19 to turn to a trial date. The Court is going to -- unless  
11:24:19 20 you all -- if you can look at your calendars, unless you  
11:24:23 21 all have a prior court engagement, in terms of a trial on  
11:24:28 22 June 21st of next year, that is when the case is going to  
11:24:34 23 be set for trial.

11:24:37 24 I don't need you to tell me today. If, for some  
11:24:40 25 reason, one of you finds out, one of your lead counsel

11:24:43 1 determines that they're unavailable because they have a  
11:24:45 2 previously set trial date, I will modify that date by a  
11:24:50 3 little bit to accommodate anyone's trial date. In my  
11:24:57 4 court, just letting you know how it works, if it's set for  
11:25:01 5 the 21st, that means you should plan to -- on the Thursday  
11:25:05 6 or Friday before the trial starts to have the voir dire  
11:25:10 7 with my magistrate.

11:25:13 8 The reason I do the voir dire with my magistrate  
11:25:15 9 is because it's much better for the parties in my opinion.  
11:25:20 10 The magistrate judge is very good. He's very experienced.  
11:25:23 11 He's been there for more than two terms. He will do  
11:25:28 12 probably a 45-minute to one-hour voir dire first, and  
11:25:34 13 then, each side will have a 45-minute voir dire per side  
11:25:50 14 to do their own --

11:25:50 15 MR. PATNAIK: Your Honor, you're distorted  
11:25:52 16 again --

11:25:53 17 THE COURT: -- usually happens in this case, I  
11:25:55 18 will be going with a seven-person jury. The jury -- okay.  
11:26:00 19 Give me one second. Are you able to hear me now?

11:26:10 20 MR. PATNAIK: We are.

11:26:11 21 THE COURT: Very good. Thank you for letting me  
11:26:13 22 know.

11:26:13 23 You'll have a seven-person jury. You'll each get  
11:26:17 24 four strikes on your venire. And then, Monday, July --  
11:26:22 25 I'm sorry, Monday, June 21st at 9:00, we'll start trial

11:26:26 1 with opening arguments. So that pretty much is everything  
11:26:31 2 I think we need to do.

11:26:34 3 Does the plaintiff have anything that we needed  
11:26:37 4 to address?

11:26:39 5 MR. BURGER: No, your Honor.

11:26:40 6 THE COURT: Counsel for defendant?

11:26:45 7 MR. PATNAIK: No, your Honor.

11:26:46 8 THE COURT: And just so you know, I didn't think  
11:26:53 9 I would have to say this back in March, but we're actually  
11:26:56 10 going to trial in Waco. I know there's some questions  
11:26:59 11 about the other places about when, but we're going back --  
11:27:02 12 we're having trials. And so, I don't know what will be  
11:27:06 13 happening in the rest of the world in June, but unless  
11:27:08 14 there's some dramatic reversal in the trend of COVID,  
11:27:12 15 we'll be going to trial in person on that date.

11:27:19 16 But I look forward to working with you on this  
11:27:21 17 case throughout. If you have anything that I need to help  
11:27:23 18 you with, take up during discovery, anything like that, I  
11:27:27 19 think your counsel knows well, I'm always available and  
11:27:30 20 I'm happy to help. Make sure that everything stays on  
11:27:33 21 track.

11:27:34 22 MR. BURGER: I'm sorry, your Honor. I just  
11:27:35 23 wanted to clarify one thing from earlier.

11:27:38 24 THE COURT: Sure.

11:27:39 25 MR. BURGER: I apologize. I may have spoken

11:27:41 1 before you were ready to be done. I apologize about that.

11:27:44 2 Just for the purpose of the record, I did have an  
11:27:47 3 objection that the slides from the technology tutorial  
11:27:56 4 should not be a part of the record. I'm wondering if --

11:27:59 5 THE COURT: I will -- generally speaking here,  
11:28:04 6 let me tell you, I'm going to overrule, but let me explain  
11:28:07 7 why. I don't think that the plaintiff -- I'm sorry. I  
11:28:11 8 don't think that the defendant used it in a way that I'm  
11:28:13 9 typically concerned with, which is, I don't want an  
11:28:18 10 engineer to come in at a tutorial and say, the way we  
11:28:25 11 drill for oil is we go down -- and whatever I'm going to  
11:28:29 12 say, I know some of you are going to laugh at me because  
11:28:32 13 I don't know anything about oil and gas. But, you know, I  
11:28:33 14 don't want an expert to say, you know, fracking means this  
11:28:37 15 and then, it turns -- just because he's trying to give me  
11:28:40 16 a big picture, and then, it turns out fracking, you know,  
11:28:43 17 as much -- I'm not going to allow people to be  
11:28:47 18 cross-examined over something that they said generically  
11:28:50 19 to help me to be educated that wasn't -- as much as you  
11:28:56 20 guys worry about getting experts to say exactly what they  
11:29:00 21 mean.

11:29:00 22 But in your case where I think the defendant just  
11:29:03 23 took something that you were using to help me understand  
11:29:07 24 something and tried to use it to help me understand it  
11:29:10 25 from their perspective, not in any way challenge I think

11:29:14 1 what you said, then I think that's okay. That's within  
11:29:18 2 what I'm okay with having happen.

11:29:21 3 I don't recall the defendants saying anything  
11:29:25 4 that you said was wrong, or misleading, or made some use  
11:29:30 5 of it other than to say, Judge, just to put things in  
11:29:35 6 perspective, this is how I see it. That's the way I took  
11:29:38 7 it. So I don't -- I don't know what the record will  
11:29:40 8 reflect of what they actually did, but that's what I used  
11:29:43 9 it for was, had you said the same thing during your  
11:29:45 10 tutorial, I got the feeling it was exactly the same thing.

11:29:50 11 MR. BURGER: Thank you, your Honor. I just  
11:29:51 12 wanted that to be clear, so I appreciate you clarifying.

11:29:58 13 THE COURT: I don't think that defendant -- yeah.  
11:30:01 14 I don't think defendant in any way tried to take advantage  
11:30:03 15 of what you did in the tutorial in a way that I think  
11:30:06 16 would be inappropriate. I think you took it and used it  
11:30:09 17 as a tutorial to help me understand it and I think that's  
11:30:12 18 okay. So I'll overrule your objection to that extent.

11:30:16 19 Is there anything else we need to take up?

11:30:18 20 MR. BURGER: No, your Honor.

11:30:20 21 MR. BELANGER: Your Honor.

11:30:20 22 THE COURT: Yes, sir.

11:30:21 23 MR. BELANGER: I apologize. I missed this in  
11:30:25 24 your explanation. I know you said we would start the  
11:30:28 25 trial on June 21st. Did you give us a number of trial

11:30:32 1 days that you were setting aside?

11:30:33 2 THE COURT: My guess is a two-patent case, you're  
11:30:39 3 probably looking at somewhere between 13 to 15 hours per  
11:30:44 4 side.

11:30:45 5 MR. BELANGER: (Moving head up and down.)

11:30:46 6 THE COURT: I don't have any huge desire -- let  
11:30:49 7 me say one other thing. The most likely scenario is that  
11:30:54 8 we will have -- the reason I have you all pick the jury  
11:30:57 9 the week before so I could start on Monday morning, that  
11:31:00 10 doesn't mean I'm trying to jam the trial into one week  
11:31:03 11 just, you know, to get it done. The more likely scenario,  
11:31:07 12 because of my docket, is that I don't even have to look.  
11:31:12 13 I probably have a Markman set, or two or three, on that  
11:31:15 14 Friday.

11:31:16 15 So we'll probably go Monday through Thursday, if  
11:31:18 16 we can finish, great. If you get finished, great. If we  
11:31:23 17 don't get finished, you may be doing your -- we may be  
11:31:26 18 finishing witnesses and doing closing arguments the  
11:31:29 19 following Monday. But I have no -- I will have no march  
11:31:36 20 through the south to get us done and a verdict by sometime  
11:31:41 21 in that first week.

11:31:43 22 Now, it's a full year from now, so my patience  
11:31:46 23 may have waned between now and then. But so far, I like  
11:31:51 24 lawyers, I like trials, I look forward to these. I'm not  
11:31:56 25 going to ask you all to mediate this. I think it's good

11:32:00 1 if you do. I think it's great if you do. I think it's  
11:32:02 2 great if you mediate it and settle it because I think that  
11:32:06 3 can be what's best for your clients. But I really like  
11:32:09 4 jury trials and I really like jury patent trials. So as  
11:32:12 5 far as I'm concerned, it will be like Christmas in June to  
11:32:13 6 have goods lawyers come in and try the case.

11:32:16 7 So one other thing and I'll have forgotten I told  
11:32:20 8 you this, so I'm sure I'll repeat it. But the way I like  
11:32:24 9 to do things is, generally speaking, only place where that  
11:32:28 10 I get a little skittish is, I don't -- I really dislike  
11:32:32 11 carrying witnesses overnight. Now, if you put your  
11:32:35 12 witness on for 20 minutes on direct and then, the next  
11:32:39 13 morning, we're going to start with the same witness on  
11:32:42 14 direct, I don't care about that. That's -- you know,  
11:32:44 15 that's fine.

11:32:45 16 I really don't like you putting your witness on  
11:32:50 17 on direct, for example, and getting halfway through cross  
11:32:55 18 and then, stopping. Or I don't like giving people the  
11:32:57 19 opportunity to go overnight in that situation. So we may  
11:33:03 20 go -- we may play a little bit with the end of the day and  
11:33:06 21 when I finish, if I can finish with the witness, I will  
11:33:10 22 almost always try to do that within reason for y'all's  
11:33:14 23 planning purposes.

11:33:15 24 But that being said, I also understand that when  
11:33:17 25 I finish trial, you have your second day of work getting

11:33:19 1 ready for the next day of trial. So again, I'm probably  
11:33:23 2 hopefully the most sympathetic trial judge in terms of  
11:33:26 3 wanting you all to do what's ever best for you all to get  
11:33:29 4 this case tried fairly and work with your witnesses and do  
11:33:33 5 all that.

11:33:33 6 But that if I have a particular oddity about me  
11:33:38 7 is, I like to finish witnesses, you know, before we -- if  
11:33:43 8 we can, before we take an overnight break. Other than  
11:33:46 9 that, it's pretty vanilla.

11:33:52 10 So anything else I can address?

11:33:54 11 MR. BELANGER: Thank you, your Honor.

11:33:55 12 MR. BURGER: No, your Honor.

11:33:56 13 Thank you very much.

11:33:57 14 THE COURT: And I'll apologize in advance because  
11:33:58 15 I'm sure I'll repeat that because I'd forgotten I told  
11:34:02 16 you. But I wish you the best of luck. Have a good week  
11:34:05 17 and be safe out there. Take care.

18 MR. BURGER: Thank you, your Honor.

19 MR. BELANGER: Thank you, your Honor.

20 (End of proceedings.)

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4 UNITED STATES DISTRICT COURT )

5 WESTERN DISTRICT OF TEXAS )

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7 I, LILY I. REZNIK, Certified Realtime Reporter,  
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